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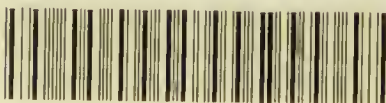
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Mr. Henry Goodman begs
with the best wishes
of the Author.

CLINICAL LECTURES.

Presented by
Benjamin Goodman
to his highly valued Friend
William Hey Esquire
— 1836 —

CLINICAL LECTURES

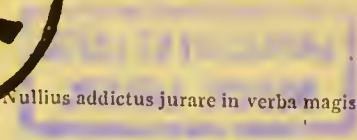
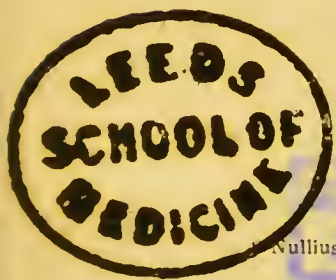
IN THE

MANCHESTER ROYAL INFIRMARY.

BY

EDWARD CARBUTT, M. D.

-c



"Nullius addictus jurare in verba magistri."

HOR.

MANCHESTER:

THOMAS SOWLER, ST. ANN'S-SQUARE.

1834.

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TO

THOMAS ENTWISLE, ESQUIRE,

TREASURER OF THE MANCHESTER ROYAL INFIRMARY,

TO THE

DEPUTY TREASURERS,

AND

TO THE REST OF THE GENTLEMEN WHO USUALLY CONSTITUTE THE

WEEKLY BOARD,

BY WHOSE PERMISSION

These Lectures were delivered,

THE FOLLOWING PAGES ARE MOST RESPECTFULLY INSCRIBED

BY

THE AUTHOR.

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NOTICE.

I CANNOT allow the present publication to go forth to the world without taking the opportunity of stating the sense I entertain of my obligation to Mr. W. W. Lloyd, the House-Apothecary to the Manchester Royal Infirmary, for his assiduous attention to the patients during the necessary periods of my absence, that is, of course, a great part of every day and night; for his perfect readiness, at all times, to forward my views as to the management of the cases; and, finally, for his occasional suggestions as to the treatment.

I may also, once for all, mention that the cases are compiled from notes taken by two very intelligent young gentlemen, Mr. Isaac Franklin, of St. Ann's-place, and Mr. Walker Golland, resident Medical Officer at the House of Recovery, who still retain their notes; by which circumstance the cases may be looked upon as completely verified.

I must likewise not omit to mention the very liberal behaviour of my colleagues in the Infirmary, in promoting the object of these lectures, as far as lay in their power, and in their readiness to give up such cases as I thought I could make useful for the purpose of Clinical instruction.

There is a pleasure in the practice of physic which none but practitioners can know. The forming of a correct diagnostic, and the adaption of remedies to the therapeutic methods upon which we may have resolved, as the most suitable to remove the diseased state which we are treating, constitute a most agreeable exercise of the mind; whilst the crowning of our theoretic views by the practical success of a cure, the restoring of a father or a mother to a grateful family, or of a beloved child to the hitherto almost despairing hearts of its parents, is calculated to impart to us one of the highest moral pleasures of which we are capable. Whatever gives us a consciousness of power, produces a feeling of the most intense delight. If this assertion be true—as in the case of tyrants and conquerors—where the exercise of power is mischievous, what must it be in the case of physicians and surgeons, where the exercise of power is not only innocent, but highly meritorious?

In the present imperfect state of society,—and, indeed, probably in any state of society which the human race are capable of organizing and sustaining,—there must always be some portion of persons liable to sickness, and who, at the same time, are unable to provide for their own subsistence, and to pay for the means of expediting their cure.

For the use of such persons large Hospitals are established in almost every considerable town in the three kingdoms, and, indeed, in most of the considerable towns on the continent. And, to speak truly, when does human nature appear to so much advantage, as when engaged in founding, raising, supporting, and well-regulating Infirmaries and Hospitals for the support of the sick poor, and for their medical and surgical treatment?

“ It is a worthy edifying sight,
 And gives to human-kind peculiar grace,
 To see kind hands attending day and night,
 With tender ministry, from place to place :—
 Some prop the head ; some, from the pallid face,
 Wipe off the faint cold dews weak nature sheds ;—
 Some reach the healing draught ; the whilst, to chase
 The fear supreme, around their softened beds,
 Some holy man by prayer all opening heaven dispreads.”

It was a very obvious thought, after the establishment of Infirmaries and Hospitals for the use of the poor, to make them subservient to the education of the rising generation of Medical and Surgical Students. In the large cities of London, Dublin, Edinburgh, and Glasgow, this has long been the case ; but, I believe, it has not been the case in many of the Provincial Towns. In Manchester, Schools of Anatomy, Physiology, Medicine, and Surgery have long been established. The celebrated Charles White, Mr. Gibson, Dr. Roget, and Messieurs Ransome and Ainsworth gave regular Annual Public Courses of Lectures upon Anatomy, Physiology, and Surgery, and

they are the true founders of Anatomical, Surgical, and Medical Schools in this town. At present Manchester possesses three regular Anatomical Schools, at two of which Medicine and Materia Medica, Midwifery, Surgery, Chemistry, Medical Jurisprudence, and Botany are regularly taught.

But still there was wanting something to crown all this—Clinical Lectures at the Royal Infirmary. Application on the subject was made to the Weekly Board. After some consideration, permission was granted for Clinical Lectures in the Operating Theatre; and, in consequence of this permission, I readily acceded to the wish of my colleagues, that I would undertake the first course of Medical Clinical Lectures.

There was one condition attached to the permission granted by the Board, which was, that no persons, except registered Pupils of the Infirmary, should be allowed to attend the Lectures. This, no doubt, was a wise regulation, for the purpose of preserving the quietness and decorum of the house; but it has had the effect of preventing the attendance of a number of gentlemen who have expressed to me their wishes to hear these Lectures; and for the satisfaction of those gentlemen, the Lectures are now published.

It may not be improper to mention, that the following pages do not contain a *selection* of cases, the favourable ones being presented, the unfavourable ones being withheld. On the contrary, they contain cases of every des-

cription which came under the care of the Lecturer, either in the wards of the Royal Infirmary, or in those of the House of Recovery, during the period through which the Lectures extend; that is to say, from the beginning of June to the end of December, 1833.

My determination that there should be a complete variety of cases in this book, will sufficiently account for the appearance of some which might otherwise be thought too trifling for publication; for this I have no doubt the candid reader will make every allowance. There is much propriety in the following remark of Lord Bacon, and under any other circumstances, it would have been my guide. “Wherefore,” says he, “I find this continuation of Medical Reports deficient, specially digested into one entire body, with diligence and judgment; which yet I understand not to be made so ample, as to extend to every common case that daily falls out; for that were an infinite work, and to small purpose; nor yet so reserved and contracted as to admit none but prodigies and wonders, as many have done:—for many things are new in the *manner* and circumstance of the thing, which are not *new* in the *kind*; and he that shall give his mind to observe, shall find many things, even in matters vulgar, worthy of observation.”*

* Bacon: Of the Advancement of Learning. Lib. iv. c. ij.

CLINICAL LECTURES,

8c.

INTRODUCTION.

GENTLEMEN,

THE Weekly Board having sanctioned the delivery of Clinical Lectures, both medical and surgical, in this institution, I have been requested, by my colleagues, to undertake the medical department of those lectures. The term Clinical relates to any thing which concerns people who keep their beds. It is derived from the Greek κλίνη, a bed. Clinical lectures, therefore, are lectures on persons who keep their beds through sickness.

Clinical Lectures, gentlemen, may be considered as the last work of your medical studies, previously to your commencing practice on your own account. You may have accurately studied anatomy, both natural and morbid, chemistry, botany, materia medica, pathology, therapeutics, and what are usually styled the principles and practice of physic ;

yet will you still want something to teach you the connection between books and disease, and also between disease and treatment. Otherwise, I can assure you that when sent for to the bedside of a patient, you will feel yourselves as so many mere children. Suppose you are sent for by an elderly person who complains of foul tongue, want of appetite, restlessness, pains in the abdomen, a quick pulse: you would naturally be inclined to consider this as rather a serious case; yet it is probable it would turn out to be nothing but obstipation of the bowels, to be easily removed by a dose of calomel and a draught of salts and senna. On the other hand you may be sent for to a person who exhibits to you sundry black spots on the surface, with a number of small tumours beneath the skin. You might perhaps feel disposed to make light of this disease. Yet it is almost certainly fatal. It is the melanosis or black disease, which we occasionally witness, and of which a very good case has been published by Mr. Fawdington, surgeon, of this town.

Now, seeing cases of various kinds in hospital-practice, and hearing clinical remarks upon them, will have a tendency to render you familiar with diseases, so that you will feel less at a loss when patients apply to you; and therefore it is that Clinical Lectures are the most appropriate termination of your studies. When I say termination of your studies, I mean, of course, your preparatory

studies; for the fact is, you must be content to remain students all your lives. The progress of science is so rapid that if you once consent to give up study, and to satisfy yourselves with the knowledge acquired up to any particular period, you will remain like a ship at anchor when the tide is driving fast, and will have the mortification of seeing every little boat shooting a-head of you, and leaving you further and further behind.

Clinical Lectures, I have said, give you an opportunity of seeing and studying cases, so as to render you in some degree familiar with diseases and treatment. And yet I feel it to be my duty to caution you against becoming what may be called case-practitioners. You must practise from principles and not from cases. I will endeavour to illustrate my meaning. In the "Memoirs of the late Mrs. Catharine Cappe" I have met with the following narrative. "They had only one child, a very charming little girl of five years old, but a second was expected the following October. The first few weeks of my visit passed away very pleasantly, until our tranquillity was interrupted by an alarm about the butler, a valuable old servant, who broke a blood-vessel in his breast, which brought his life into the utmost danger. Before he recovered, we had a still greater alarm, by a distressing numbness on one side, of which Mrs. Winn complained, and which excited the apprehension of a very serious paralytic attack. A neighbouring surgeon was sent for, and

she was bled in the arm very copiously; a treatment, which, as I was afterwards persuaded, was very erroneous. She recovered, however, for the present, &c.”—“On my return from Bath, I found the family removed to their house in London, where Mrs. Winn was attended by the late highly celebrated Dr. William Hunter, who was engaged to be her accoucheur. As she did not expect to be confined for some time, I accepted of an invitation to dine in the city, a day or two after my arrival; but before we sat down to dinner, a servant followed, to desire I would return immediately, his lady having been taken very dangerously ill. I did return instantly, and found my amiable friend completely deprived of all sensation from her breast downwards, but her mind perfectly calm, collected, and composed. ‘What a change,’ she said to me, as I approached her bed-side, ‘have a few hours made, I might indeed say a few minutes, so very sudden was the attack. You know, I suppose,’ she continued, ‘that I have lost all sensation from my breast to my feet, but God is good, &c.’”—“Dr. Hunter had called in the Doctors Ford and Warren to a consultation, being unable to ascertain the cause of the seizure whether it was simply paralytic, or connected with, or even occasioned by, a state of pregnancy; and they all seemed to incline to the latter opinion. ‘*If I had ever seen or read of such a case,*’ said Dr. Hunter to me with a degree of ingenuousness which a practioner less eminent would

hardly have hazarded, ‘*I should not now have been so totally at a loss.*’ The result of their consultation was that their patient should be bled, notwithstanding she had a second time undergone that operation, only two or three days before. ‘I believe, gentlemen,’ said Mrs. Winn, ‘you are mistaken in this opinion; my own feelings and judgment are quite against your decision; however, you should know better than I do, therefore I submit,’ and she immediately held out her arm, and was bled accordingly. Dr. Hunter afterwards told me, that he believed she was right, and that they had been mistaken.”—“Five days after her seizure, Mrs. Winn was delivered of a dead child, a son, the object of their fondest wishes.—‘Ah,’ said she, ‘we have been too anxious about this.’ For some days, there were considerable hopes of her recovery, but the gleam was transient, and she afterwards sunk very rapidly.”* There can be little doubt that these gentlemen were right in their recommendation of bleeding, although success did not attend it. But, what I object to is Dr. Hunter’s expression, “If I had ever seen or read of such a case, I should not now have been so totally at a loss.” He did not, it appears, practise from principles, but from cases.

You will understand I am not wishing to undervalue Dr. William Hunter, whom I consider far above either my censure or my praise, and whose treatment of this case by bleeding I highly approve

* Mem. of the late Mrs. C. Cappe, p. p. 178—181.

of. I merely take this instance as the first that occurs to me, in order to illustrate my meaning.

Now, I would recommend you to study as many cases as you can, but solely with a view to enable you to form, correct, or strengthen your principles of practice. If you see that either sensibility or the power of muscular motion is lost, you may be assured that the nervous system, in some of its parts, either the brain, the spinal cord, the ganglions, or the nervous filaments are, or have been, oppressed in some manner, or otherwise injured. You must endeavour to discover the cause of this, and then to remove it. Of the means of accomplishing these objects, we shall afterwards have occasion to speak.

Again, from the cases you have witnessed or will witness, you may form this conclusion, that the most likely mode of lessening entonic inflammation in any part of the body, is to lower the action of the heart both in force and frequency; and that the way to do this is to abstract blood from the circulating system. You will, therefore, bleed in acute rheumatism, in inflammation of the brain, of the ear, of the throat, of the larynx and windpipe, of the lungs and the pleura, which last inflammation is called pleurisy, in inflammation of the heart, in peritonitis, in inflammation of the stomach, of the intestines, of the liver, of the spleen, of the kidneys, of the bladder, and in various other inflammations: that is to say, in all the inflammations which I have enumerated, and also

those which I have not enumerated, be acute or entonic.

In like manner you will lay it down as a principle that the same abstraction of blood, for the same reason, is the best method of arresting entonic hemorrhage; that is, the vigorous and spontaneous effusion of blood from any of the outlets of the body. You will, therefore, draw blood in entonic bleeding at the nose, entonic spitting of blood, entonic vomiting of blood, entonic bloody urine, entonic uterine hemorrhage, entonic anal hemorrhage.

So, you will find, that in entonic inflammation, and in entonic hemorrhage, except perhaps, that those affections be seated in the inner or mucous membrane of the alimentary canal, an excellent assistant to the abstraction of blood is the administration of purgatives. You will therefore give purgatives proportioned to the age and strength of your patients. In inflammation or hemorrhage of the mucous membrane of the alimentary canal, you must abstain from violent purgatives, for reasons which I shall have frequent opportunities of explaining.

You will also soon discover the principle that the administration of mercury so as slightly to affect the mouth is an almost certain method of overcoming inflammation in all the membranes or textures; except, perhaps, the mucous membranes, for I am not quite certain about them. You will, therefore, administer mercury, in an appropriate manner, in all inflammations of serous membranes, of cellular tex-

ture, of muscular texture, of tendinous and ligamentous texture, of nervous texture, of dermatic texture or skin, and of cartilaginous texture. That mercury has the same power in inflammations of mucous membranes has been asserted. I do not mean to deny it; but I have some doubts.

You may also lay it down as a principle, that in all fevers, and acute inflammations, the employment of diaphoretics is of very essential service in removing the irritability and restlessness which attend those states, by bringing an agreeable moisture on the skin, which by its evaporation assists in removing the superfluous and injurious heat. You will, therefore, administer diaphoretics, and will endeavour by a judicious choice among them to suit the peculiarities of each case.

In like manner you will find that the abstraction of blood and the use of mercury are very suitable means of promoting the absorption of effused fluids in close cavities. You will, therefore, if nothing particular forbid, employ them in the treatment of paralysis and dropsy. So it will be found that the best mode of rousing torpid glands to action is the moderate administration of mercury, which is, therefore, particularly required in torpor of the liver or of the kidneys.

These are instances of general principles. For instances of specific principles I may mention the employment of bark in agues, mercury and sarsaparilla in syphilis, the oil of turpentine to expel the

tape worm, and the use of opium to cure the delirium tremens.

Such are a specimen of some of the principles which must guide your practice. But you must also attend to principle in the combining of the articles of medicine which you prescribe.

For instance, you would not prescribe *copaiba* and *digitalis* in the same mixture; because *copaiba* is a stimulant, *digitalis* is a sedative. Yet I have seen them combined. But, what will you say to decoction of bark, tartar-emetic, and sulphuric acid, which I have seen prescribed in the same mixture? I have seen decoction of bark and sulphate of iron combined. They are not incompatible in action on the human system, but they form together a most unpleasant-looking, black, inky fluid. I have seen spirit of ammonia added to a solution of sulphate of quinine. These are chemically incompatible. I have seen spirit of ammonia added to syrup of red poppies, which are chemically incompatible. I have seen five grains of calomel prescribed in an ounce draught, and I have seen the benzoic acid regularly ordered in drops. There are also other inconsistencies,

“*Quæque ipse misserima vidi;*”

but I trust I cannot add,

“*Et quorum pars magna fui.*”

GASTRO-ENTERITIS.

Now, Gentlemen, I shall not endeavour in the lectures I am about to deliver, to present to your notice rare and curious cases only. I shall make it my study to bring before you the ordinary practical cases, the study of which will be the most likely means of preparing you for the practice of your profession.

I have in the house at this time four cases of gastro-enteritis. If you ask what is gastro-enteritis, I reply it is irritation or inflammation of some one part, or of every part of the mucous membrane of the alimentary canal from the lips to the anus, but more especially of the mucous membrane forming the innermost coat of the stomach. You will find in Morgagni "*De Sedibus et Causis morborum,*" many cases of this description, but more especially of inflammation of the mucous membrane of the stomach. In modern writers there is much confusion as to diseases of the inflammatory kind in the alimentary canal. Dr. Cullen says that his erythematic gastritis is always seated in the villous, that is, the mucous coat of the stomach.* Dr. Mason Good intimates that his erythematic enteritis is sometimes, if not most commonly, situated in the external, that

* Cullen's "First Lines of the Practice of Physic." Parag. 385.

is, the serous coat of the intestines.* Pinel, in his “*Nosographie philosophique*,” when he comes to “*Phlegmasies des membranes muqueuses*,” contents himself, with regard to the inflammatory diseases of the mucous membrane of the alimentary canal, with the mention of aphthæ and dysentery.† He does, to be sure, slightly glance at the effect produced upon the mucous surface of the alimentary canal by the epidemic catarrhs which have at different times prevailed in Europe, but I do not find that he mentions any inflammatory disease peculiar, or confined, to that surface, except aphthæ and dysentery. It is principally to Broussais that we are indebted for having had our attention drawn to the numerous and important class of diseases which depend on irritation or inflammation of the mucous membrane of the alimentary canal; and which, for the sake of brevity, may be comprised under the term gastro-enteritis. He has been opposed, and is still opposed. It is not my business to defend him. I should recommend you to read his works and the works of his opponents. “Try all things, hold fast that which is good.” For my own part, I shall present to you principally facts, and I should wish you to exercise your own judgment in admitting or rejecting my interpretation of those facts, or,

* Good’s “*Study of Medicine*.” 2nd Ed. vol. II. p. 468.

† Pinel “*Nosographie philosophique*.” Tome 1er. p. 147-150.

perhaps, I ought rather to say, my comments upon those facts.

Gastro-enteritis then is generally characterised by pain at the pit of the stomach, in the head, between the shoulders, in the small of the back, in the hips, thighs, knees, legs, feet, and sometimes toes. There is also great coldness of the extremities, especially the lower extremities. The patient complains of much lassitude and debility, dizziness, or swimming in the head, lowness of spirits, with vague fears of impending danger, anxiety and great restlessness, disturbed sleep and harassing dreams, with nightly cramps in his lower limbs. The temper usually becomes more or less morose and hasty. There is also a curious circumstance which it may be as well to mention, that is, the non-liability to be tickled, however ticklesome the patient was when in health. The tongue varies, but it is mostly white, with redness at its point and margins; sometimes it is entirely of a deep red, but it always shows more or less of redness in some part. There is great thirst, heat, and dryness of the throat, with some pain upon swallowing; generally little or no appetite, but on the contrary nausea, and sometimes vomiting. There is frequently a cough, but with little expectoration. There is sometimes hiccough, and always much flatulence. The bowels are generally very costive, sometimes they are exceedingly loose, but they are seldom or never regular. The skin is frequently hot and dry; sometimes not so.

The pulse is mostly from 80 to 100; usually feeble. The urine is generally small in quantity and red. If there be a great desire for cold drinks it is a sign the stomach is inflamed; if there be a great desire for drinks, but not for cold drinks, it is a sign the small intestines are inflamed, but not the stomach.

If there be copious bilious diarrhæa it is a sign the duodenum is inflamed. If there be vomiting, but not of bile, it is a sign the stomach is inflamed; if there be a vomiting of bile, it is a sign the stomach and duodenum are both inflamed.

But it is hardly necessary for me at present to dwell upon the symptoms, as you will have the opportunity of studying them in nature, in the cases which I shall offer to your notice.

The predisposing causes of this complaint are all those which tend to debilitate the system. The exciting causes are very hot weather, alternations of hot with cold weather, cold and damp applied to the feet, impure and damp air, bad and insufficient food, the depressing passions and emotions, especially long-continued grief and anxiety, fermented liquors taken in excess, the use of stimulant and other improper articles of diet, acrid and poisonous substances, and contagious particles floating in the air, and taken into the stomach. The proximate cause is an inflammation of part or of the whole of the mucous membrane of the alimentary canal from the lips to the anus.

On opening the bodies of those who have died of

this disease we find traces of inflammation in all or in various parts of the mucous membrane of the alimentary canal from the lips to the anus. The mucous membrane is very much thickened, and is either of a bright red, or of a deep crimson colour. Sometimes the coats of the stomach are so much thickened, that, taken altogether, they exhibit, when cut through, more than half an inch in thickness, and the mucous membrane exhibits numerous excrescences of a considerable size. On such an occasion too the stomach is usually found not exceeding in bulk the doubled fist; the stomach and small intestines are also very much contracted in their diameter. The colon is also contracted, if the inflammation have extended to the colon. Ulcerations we find in almost every part, but most frequently in the lower part of the ileum, next to that most frequently in the cœcum, next to that in the transverse colon, next to that in the stomach, next to that in the jejunum, next to that in the descending colon, next to that in the duodenum, next to that in the rectum.

Napoleon Bonaparte, you may remember, died of a gastro-enteritis complicated with hepatitis; both brought on by grief, vain regrets, fretting, and anxiety; aided by the influence of a hot climate. His gastro-enteritis terminated in ulceration of the stomach, and if I recollect rightly, his ulcer perforated the coats of the stomach, after which, of course, all curative efforts are vain.

With regard to these ulcerations, I have had

patients who have recovered from this disease, but who had at one and the same time ulcers in the mouth and ulcers at the anus.

Generally the bowels are costive, but I believe that when the duodenum is inflamed, or when ulcerations exist at the lower part of the ileum, diarrhea usually supervenes; and when ulcerations exist in the colon we mostly have dysentery.

When these ulcerations perforate the intestine, as they sometimes do, death will certainly ensue in a few hours: on the other hand, however, they not unfrequently heal, leaving a cicatrix with the mucous membrane destroyed at the points where the ulcers existed.

The cause of the cough which I have mentioned, is, no doubt, the irritation of the extremities of the eighth pair of nerves, which supplies the stomach as well as the lungs:—the which irritation being conveyed to the brain, the brain makes a kind of mistake, and, receiving the same impression as if the irritation came from the lungs, uses an instinctive effort to remove the cause of irritation from the lungs by exciting the act of coughing.

One of the most remarkable circumstances attending this complaint is the absence of pain upon pressure of the abdomen. This, to superficial observers, is almost incredible; and some practitioners have even gone so far as to deny the possibility of the existence of inflammation of the stomach or intestines without pain upon pressure. Let such

persons reflect that the mucous membrane of the eye, the conjunctiva, is frequently suffused with redness and inflammation without pain: indeed, I believe there is never pain in common ophthalmia unless the inflammation extends to the sclerotica. Again, in colds of the head or chest, there is no pain of the mucous membrane of the nose, trachea, or bronchi, although their mucous membrane is in a state of inflammation. In dysentery there is no pain produced by pressure; although the patients are at intervals tormented by colicky pains or gripings, produced by spasm of the muscular coat of the colon, or great intestine. I had a few days ago a French physician, Dr. Bouchet, from Lyons at the Infirmary. Upon conversing with him upon this subject, he said to me, “Monsieur, l’inflammation sourde de l’estomac est un chien qui mord sans aboyer.”

But if we go to authority, we have that of the great Morgagni, who wrote nearly a hundred years ago. “*Sphacelum quidem intestinorum accidere interdum posse, nulla præcedente inflammatione, non negabis; sed quæres simul, possitne, aliquando, ejusmodi inflammationi succedere, cujus præcipua et pervulgata signa non extent. Ut a Sepulchreto non recedamus, vide, quæso, in hâc ipsâ decimâ-quartâ sectione, observationem Riverii. Ileum intestinum circa finem, cum adjunctâ mesenterii portione, gangrænâ, atque adeo sphacelo, affectum reperies in eo, qui cum laborasset ex intestinorum*

dolore primo die morbi protracti usque ad decimum-tertium; nullus autem dolor adesset, neque ulla febris secundo die; magnam, die tertio et sequentibus, dubitationem injecerat medicis, cum inflammationem testari videretur febris, quæ tertio illo die supervenit, sitis et linguæ ariditas: sed, quomodo inflammatio intestinorum adesse posset citra dolorem, concipere non poterant. Num sphacelum primo jam die factum credes? Duodecim ergo dies sic homo vixerit! Deinde, quomodo, sphacelo facto, febris, quæ antea non erat, accessit cum linguæ ariditate?

Certè, superiore epistolâ, videris, in sene, pulsus ex febrilibus factos demum sanorum similes, linguam autem ex siccâ humidam; quo in sene intestinorum partem adhuc rubram, partem verò lividam, nigram, gangrænâ occupatam, deprehendimus; indicio non obscuro, novissimè hanc ex inflammatione in gangrænam transiisse.

Sed quod ad dolorem attinet, aliæ nostræ epistolæ sine illo fuisse intestinorum inflammationem, commemorant. Namque ut sileam in xxix nullo intestina dolore vexata legi, quæ omnia maximè essent inflammata; illud, enim, propter eorum paralysim accidisse, conjeci: certè non erant in aliis ægrotantibus resoluta, ut puta in duobus, epistolâ xxi propositis; et tamen, etsi inflammata reperta sunt, nulla audita fuerat de eorum dolore querela. Atque ut ægram memorem, de quâ recordari facilius possis, mulier superioribus litteris descripta est, cujus tenuia

*intestina, maximâ ex parte, rubebant; eademque doloris fermè expertia visa fuerant.**

Dr. Cullen, who published exactly fifty years ago, says “It appears, at least from dissections, that the stomach has often been affected with inflammation, when neither pain nor pyrexia had before given any notice of it; and such inflammation I apprehend to have been chiefly of the erythematic kind;”†—that is to say, seated in the villous or mucous membrane.—Again, in the next paragraph, he remarks, “From what has been said it must appear, that an erythematic inflammation of the stomach may frequently occur, but will not always discover itself, as it sometimes takes place without pyrexia, pain, or vomiting.”‡

F. I. V. Broussais, a celebrated physician now living at Paris, says “La gastro-entérite existe sans aucun point douloureux lorsque l’inflammation ne prédomine pas avec force dans l’estomac ou dans le duodénum, et la pression de l’abdomen ne développe même pas de douleur.||—Again, in another work, Broussais says “Malgré tout ce que j’ai pu écrire depuis, il est encore des praticiens qui exigent absolument la présence d’une douleur aigné, augmentant même au toucher, pour reconnaître une inflammation de l’estomac. On ne peut pas leur faire

* Morgagni. De sedibus et causis morborum. Ep. 35. art. 20.

† First Lines. Par. 398.

‡ Ibidem. Par. 399.

|| Examen des Doctrines Médicales, &c. Prop. cxxxvi.

comprendre que la phlogose de ce viscère ne ressort le plus souvent que par le moyen des sympathies. Rien ne peut les empêcher de déprimer avec force l'abdomen afin de fuir ressortir de la douleur, et s'ils en développent une qui soit un peu obtuse, ils la qualifient de nerveuse. *O, imitatores, servum pecus!* *

G. Andral, another very eminent physician in Paris, says " Confirmant par nos recherches les belles observations de M. Broussais sur le caractère indolent d'un grand nombre de phlegmasies intestinales, nous écrivions en 1823 que l'on serait exposé à méconnaître continuellement les entérites les plus intenses, si l'on ne voulait en admettre l'existence que là où on trouve de la douleur. Depuis la publication de nos recherches à cet égard, de nombreux travaux, publiés par des hommes des écoles les plus différentes, sont venues encore démontrer que les intestins peuvent être très-profondément affectés, sans qu'il en résulte de douleur. †

Mr. W. Cooke, the translator and abridger of Morgagni, says in a note, " If I have been prolix on this case it is because I conceive it elucidates a principle of vast importance, namely, that there may exist inflammatory action when there are scarcely any other symptoms than those of dyspepsia; though, indeed, this fundamental truth has been distinctly

* Histoire des Phlegmasies ou Inflammations chroniques. Par F. I. V. Broussais. 3me édition. 2me tome. p. 495.

† Clinique médicale. Tome iii. p. p. 518, 519.

asserted by Morgagni. Many such cases have occurred to me.”*

But, finally, I appeal to my judicious and intelligent colleagues, whether upwards of two years ago, at the House of Recovery in this town, we had not many deaths of patients who fell victims to the then prevailing epidemic; and who, upon being examined after death were found to have had inflammation and ulceration of the mucous membrane of the alimentary canal; but who, during life, made no complaint whatever of pain at the stomach, or in the bowels, even when pretty severe pressure was made on those parts.

I have said and have laboured to prove that there is, in general, in this complaint, no pain upon pressure of the stomach or abdomen. Sometimes, however, there is pain. How is this to be accounted for? I will tell you what dissection has taught me. On the 22nd October, 1832, I took into the house a man, James Kay, from Royton, with all the symptoms of gastro-enteritis, but who complained of considerable pain upon pressure of his abdomen. He had been ill six months. The disease was marked by me *peritonitis chronica*. The treatment however does not differ much. He was repeatedly leeches, poulticed, and blistered. He also took mercury which, as I have told you, is a kind of specific in inflammations of the serous membranes.

* Abridgment of Morgagni. Vol. 2. p. 71.

He had mucilaginous and diluent diet. He continued nearly three months and then died. After death, upon opening the abdomen, we found the adhesion of the peritoneum so universal that it was impossible to take out the bowels. We, however, cut into the intestines and discovered inflammation and ulcerations of the mucous membrane. I therefore judge from this case and from other cases, that inflammation of the mucous membrane and of the serous membrane are not unfrequently combined; and when inflammation of the serous membrane co-exists with gastro-enteritis, then there is generally, but not always, pain upon pressure.

Before entering upon the treatment of gastro-enteritis, I wish to call your attention to the importance of studying this disease. Before I became acquainted with it, I was frequently at a loss. Patients came to me complaining of pain in the head, the epigastrium, and the back, aching and weariness in the limbs, the face flushed after meals, loss of appetite and flatulence, with a tongue shewing much irritation, great thirst, a burning sensation in the throat, the bowels sometimes costive, sometimes loose, low spirits, great restlessness, disturbed dreams, an itching or pricking on the skin, with frequent inclination to vomit, and a liability to vertigo or swimming in the head. I think I now know their complaint, and how to treat it; but, as I have just intimated, a few years ago I was quite at a loss. I therefore most earnestly advise you to

study this disease. You must not mind the sneers of idle people. It is easier to sneer than to learn. Recollect that, as Mr. Buckingham said in his speech at Sheffield, "most things that are new and reasonable are received with an air of wonder at their supposed absurdity."

Gastro-enteritis is the cause of many other diseases. It gives rise to cephalitis or inflammation of the brain or its membranes, to cephalæa or headache, to vertigo or swimming in the head, to delirium and to mania:—because, when irritation or inflammation is once established in any part of the system, it is very apt to be repeated in some other part, which fact I could illustrate by many examples, if time permitted. I shall merely at present mention the various metastases of rheumatism, especially the one to the heart,—the pneumonitis or carditis which so frequently follows the unsuccessful irritation of the uterus upon the attempt at the first menstruation,—the vomitings which accompany nephritis, hysteritis, and orchitis. Gastro-enteritis also produces other diseases, the mention of which I shall defer till another occasion. Among them are, hydrophobia, so called, hepatitis, cholera, and some kinds of jaundice.

Gastro-enteritis shows itself under a variety of forms. When chronic and mild it takes the form and name of dyspepsia, gastrodynia, gastralgia, hypochondrism, pyrosis, cardialgia, bulimia, dipsosis, adipsia, anorexia, pica, flatus, and vomiting. When

inflammation exists in the duodenum we have bilious diarrhea. When the disease exists with numerous ulcerations at the termination of the ileum, we have also diarrhea; when with inflammation and ulcerations of the colon or rectum, we have dysentery. In this last case, the disease should be called gastro-entero-colitis. Sometimes gastro-enteritis takes the form of simple continued fever, and then the pain in the head of which patients complain, and the inflammation of the brain or its membranes which is sometimes found after death, are secondary symptoms.

I have seen enough to make me absolutely certain that the common English autumnal bilious cholera, (of the Asiatic epidemic I do not at present give any opinion at all,) is a gastro-enteritis, or rather a gastro-duodenitis. The intense redness of the tongue, the immense desire for cold water, the pain at the epigastrium, the constant vomiting are proofs of the inflammation of the stomach; the bilious purging, and the bilious vomiting, with the great relief obtained from the application of leeches over the duodenum are equally proofs that the duodenum is inflamed. There can be no doubt that the inflammation of the duodenum has the effect of exciting the liver to an inordinate secretion of bile.

I am inclined to the opinion, although I am not quite certain, that the two species of diabetes, the insipidus, and the mellitus, are neither more nor less than gastro-enteritis, under the peculiar forms which

they exhibit, of great thirst, with a preternatural secretion of urine; in the latter species containing a considerable quantity of sugar, in the former species nearly pure. I shall, however, have to mention this subject again.

The delirium tremens is a true gastro-enteritis, of which the seat is in the stomach, but the manifestations are in the brain. Why this gastro-enteritis should disappear immediately upon sound sleep having been procured, I am at a loss to say, at present.

Gastro-enteritis commences some diseases as small-pox and scarlet-fever; but in these cases it is soon overcome by the counter-irritation of the eruption on the skin.

Gastro-enteritis accompanies or fatally terminates some diseases; as is seen in patients who die of phthisis, who are almost always carried off by a colliquative diarrhæa, and, who upon being examined after death are found to have had the mucous membrane of the alimentary canal inflamed and ulcerated. I am inclined to think that, in these cases, the gastro-enteritis is the primary disease, and that it gives rise to the phthisis somewhat in this manner. You know that gastro-enteritis is a very insidious, obscure, and lurking disease. Well, we will suppose a patient with delicate and irritable lungs to labour under an unsuspected gastro-enteritis for several months; this produces cough in the manner explained already, at page 15. This cough

irritates the lungs, produces increased expectoration, inflammation, tubercles, and abscesses; in short, phthisis. This disease attracts the attention, the gastro-enteritis is quite overlooked until the colliquative diarrhea comes on, and even then the patient is said to have died of phthisis with diarrhea, the existence of gastro-enteritis being never suspected from the beginning to the end. We had a patient of the name of Peacock, who died in this manner in this house, two years ago: upon examining his lungs after death, we found comparatively little disease in them, although most people would have said the man had died of phthisis: but his stomach, duodenum, ileum, colon, and rectum were both inflamed and ulcerated. The ulcers were so numerous, that the best mode of giving you an idea of them, is to ask you to conceive a vertical section of a bunch of grapes. Our worthy house-apothecary, who had conceived the disease to be pure phthisis, told me, after the inspection, that he had never been more surprised in his life. The man, in fact, died of gastro-entero-colitis; for which disease I had treated him.

You will not wonder that diseases so many and so severe should have their seat or their source in the stomach, when you consider that the stomach is the real centre of the animal system. The stomach is to the animal what the root is to the tree: if you destroy or much injure the root the tree will die; so it is with the stomach and the animal. The stomach

is in reality the only essential part of animal organization; for every other part of an animal is occasionally found wanting in various animals, but the stomach is never absent. Indeed, there are animals which consist of nothing but stomach; absolutely, nothing but stomach.

The first great want of an animal is the want of solid and fluid materials to put into the stomach. A part of mankind, in our present artificial state of society, do not obtain sufficient to supply the stomach; another part are in the daily habit of supplying it with too much: both classes constantly err in supplying it with improper matters. An affluent man commits to his stomach daily, coffee, tea, sugar, eggs, salted meat, bread and butter; beef, mutton, fish, soup, potatoes, salads, indigestible puddings, tarts, custards, cheese, fruit, rich cakes, ale, wines of various kinds, with brandy or other spirits. And yet he wonders he should ever be ill; the real wonder is that he should ever be well. Both the affluent and the poor are in the habit of taking fermented liquors, and too many are guilty of taking them to intoxication. Every man who is intoxicated has, at the time and for a number of hours afterwards, a gastro-enteritis; which is shown by his great thirst, burning pain at his stomach, nausea and vomiting, head-ache, pain and weariness in his limbs, his loss of appetite, and the lowness of his spirits. Give him absolutely nothing to eat, and nothing to drink except cold water, and

let him lie in bed, and he speedily recovers. Hence we have a hint for the treatment of gastro-enteritis. Abstinence and repose.

The emotions of the mind have likewise a powerful influence upon the stomach. Let a person who is going to sit down to dinner with a good appetite, receive a piece of news, either exceedingly joyful, or exceedingly distressing; his appetite goes in a moment. Children who are about to set out on a pleasant journey, it is well known, cannot eat. This, when I was a child, used to be called, being "journey-proud."

On the other hand, a blow upon the stomach will sometimes take away life instantly: a drink of cold water, when the body has been very hot, has often had the same effect. Attend to your companions when on a journey afoot; as their stomachs grow empty, how sullen and silent the whole party becomes: let a crust of bread, a little cheese, a glass of ale or wine be taken, and cheerfulness immediately reigns, even long before any nutriment has had time to reach the general circulating system. These things all show the general sympathy between the stomach and every other part of the body.

As to the treatment of gastro-enteritis, we have three principal indications to fulfil:

1. To overcome the inflammation;
2. To allow the stomach and bowels to recover themselves; or, in other words, to allow nature to recover the patient;

3. To allow the healing of ulcers, if any such have formed in the stomach or intestines.

For the fulfilment of the first indication, if the patient be young and vigorous, and the disease violent, blood must be drawn from the arm, and the venesection may even be repeated. But, in general, the application of leeches to the stomach and abdomen will be sufficient. A proper number, according to circumstances, from four to twenty-five, thirty, forty, or fifty, may be applied, and, if necessary, repeated every two or three days.

If the pain in the head remains, leeches may be applied to the temples, or behind the ears; but, usually, the pain in the head departs, if the disease be recent, upon the first application of leeches to the stomach.

Some practitioners I have known who have applied caustic to the back, and leeches to the limbs, under the idea that the pains in those parts were rheumatic pains; but the idea is a mistake, and the practice founded upon it is decidedly wrong. Other practitioners, having formed the absurd notion that the pains between the shoulders, in the small of the back, and in the limbs, were rheumatic, have given the *vinum colchici*, the ammoniated tincture of *guaia-cum*, and other stimulants, thereby irritating the stomach, and greatly aggravating the real disease.

The patient must be kept strictly in bed, and have an emollient poultice constantly placed on the epigastrium and abdomen. If convenient, he may

occasionally use the warm bath at the heat of 100° of Fahrenheit. He must, in general, have no medicine, except two ounces of the *infusum rosæ compositum*, with one twelfth of a grain of acetate of morphia, three or four times a day.

You may, if you choose, make trial of mercury; in which case, small doses of calomel combined with opium, or of the *hydrargyrum cum cretâ* without opium, will be proper: but, if you give mercury you must omit the *infusum rosæ compositum*, on account of the sulphuric acid which it contains.

You may also try the astringent sulphates; the sulphate of zinc in a dose of one grain to four grains, the sulphate of iron in a dose of one grain to three grains, the supersulphate of alumina and potassa in a dose of five grains; or the sulphate of copper in a dose of half a grain to one grain.

If the bowels be costive, you must, if possible, avoid giving irritating purgatives, because, in the irritable state of the mucous membrane, even castor oil will frequently bring on a very disagreeable looseness. A common purging injection, or even an injection of warm water, administered daily, will usually be sufficient. But when injections cannot be conveniently used, as in the families of the very poor, then you may make trial of a mild purgative, as calomel and rhubarb, the epsom salts, or calcined magnesia. Those who take calcined magnesia should, if they can afford it, always take Dr. Henry's, which is decidedly preferable.

If there exist a troublesome diarrhæa, which may take place, either with or without ulceration, you may apply leeches over the region of the duodenum, or to the anus, and you may give the acetate of lead in pills, in the dose of one grain to five grains, with from half a grain to a grain of opium, every four hours, which has been found, at our House of Recovery, the best remedy. In milder cases, we may be content to attempt to check the diarrhea by two ounces of the *mistura cretæ* with ten drops of *tinctura opii* every four hours.

Sometimes I should recommend a blister to the epigastrium, or counter-irritation by the application of emetic-tartar ointment to the same part. But I am bound to say that the benefit of a common poultice is to those who have never before witnessed it, truly astonishing.

With regard to diet, if the disease be violent and recent, the patient must be absolutely restricted to cold water, of which he will in general be very desirous. Afterwards, as the disease recedes, he may be allowed to take milk and water, barley-water, or rice-water, thickened with a little gum-arabic, linseed-drink, and all of these may be sweetened with loaf-sugar, and, if there be no diarrhea, acidulated with lemon-juice. As he recovers he may be permitted to take arrow-root, sago, tapioca, and Irish moss, all dressed with milk and loaf-sugar; he may also eat any of the ordinary ripe fruits, as strawberries, cherries, grapes, raspberries, goose-berries,

currants, nectarines, peaches, and ripe pears, rejecting the indigestible parts, as the skins and stones; he may also take ices, as water-ices, strawberry-ices, and ice-creams. Afterwards, he may eat sea-biscuit, macaroni, and vermicelli either dressed with milk or made into puddings, rice-pudding, sago-pudding, biscuit-pudding, and barley-pudding. Finally, he may have leave to take mutton and beef-broth, or soup, brandy and water, wine, ale, and any thing else he likes.

In milder cases you may choose from the above-named articles those which you may judge the best adapted. In anorexia, dyspepsia, pyrosis, vomiting, headache, and vertigo, it may be sufficient to confine the patient to sea-biscuit, barley-water, rice-water, sweetened and acidulated, sago-pudding, tapioca-pudding, rice-pudding, milk and water, arrow-root and so forth. But I must forewarn you that patients with indigestion, heartburn, vomiting, headache, or vertigo, do not readily submit to this excellent plan of treatment. So that you must expect they will leave you occasionally to go to other practitioners, who will prescribe for them beefsteaks and brandy and water, mutton-chops and sherry wine, with a number of stimulating medicines, calculated to afford temporary relief, but finally to aggravate the complaint. For, the fact is, that when the inflammation is confined to a small part of the stomach, the pleasure which the healthy part receives from the application of stimulating meats, drinks, and medi-

cines to its inner surface, quite overpowers the uneasiness which is experienced from the diseased part; and therefore gives a feeling of relief to the patient, which is altogether fallacious. For, these very means exasperate the inflammation, and cause it to spread to the parts which before had been healthy.

It has been said that animal food is more easily and more quickly converted into nourishment than the farinaceous and mucilaginous articles of diet. Allowing, for a moment, this to be the case, do not we find that the digestion of animal food always has a tendency to increase the febrile state of the system? But we may reasonably doubt the correctness of the statement. M. Broussais says, "On pensait autrefois que les matières alimentaires les plus rapprochées de la nature de l'individu étaient le plus promptement assimilées, et devaient être absorbées les premières. L'expérience n'a pas répondu exactement à cette théorie. M. le docteur Sarlandière a constaté à l'Hôtel-Dieu, sur trois personnes portant des anus artificiels, que les alimens les moins nutritifs, tels que les racines, les tiges, et les feuilles des végétaux, les fruits crus parvenaient plus promptement à l'ouverture que les fécules, le lait, et les viandes : la différence est même considérable ; car, dans l'espace d'une heure, d'une heure et demie, ou de deux heures, les premiers sortaient déjà par la plaie, sans même présenter beaucoup d'altération ; tandis que les seconds ne s'y présentaient

qu'au bout de trois ou quatre heures, offrant l'aspect d'une matière chymeuse déjà parfaitement élaborée. Ces expériences prouvent que le sens interne gastrique repousse les alimens qui offrent le moins de matière assimilable, et retient avec une sorte de complaisance ceux dont il peut tirer un meilleur parti pour la nutrition. Le médecin que je viens de citer observe que le lait et les féculs passent plus promptement que les viandes, sans être pour cela moins assimilés; ce qui donne à ce genre d'aliment un très-grand avantage sur tous les autres, lorsqu'il s'agit de nourrir une personne dont l'estomac est très-irritable.*

When the inflammation is entirely overcome, when the tongue has become clean, the vomiting has ceased, the pain has left the head, back, and loins, the arms, thighs, and legs, the patient will sometimes remain in a state of debility. At such a time I frequently administer bark, or quinine, or calumba, with wine, brandy diluted with water, and beef-tea or soup. If these things remain easily on the stomach, if the patient takes the wine, brandy, and beef-tea with eagerness and pleasure, and never rejects them by vomiting; and, above all, if his strength gradually returns under the use of them, I judge the proof to be complete, that they are suitable to the condition at which he has arrived.

* *Traité de Physiologie appliquée à la pathologie.* Par F. I. V. Broussais. Tome 2me. p. 128.

But, sometimes, when incessant vomiting continues, attended with incessant purging, when the pulse is gradually sinking, and there is, apparently, no hope for the patient, I also give brandy and beef-tea. It is not so easy to justify this practice : it is certainly contrary to the theory of the disease and of the method of cure. Broussais, speaking of a similar thing done by himself, says, “ *Cette faute est encore celle de beaucoup de praticiens. Il fallait laisser cet homme dans son état de faiblesse, en lui donnant un peu d'eau sucrée ou gommée.*”^{*} The fact seems to be, that, when the case becomes absolutely hopeless under any treatment, one feels irresistibly impelled, both in justice to the patient, to the feelings of the friends and by-standers, and, indeed, to one's own feelings, to have recourse to the old practice, in order to afford the last small remaining chance of life,—small indeed! and seldom realised! But, if you do not give this last chance to the patient, you will be accused by his ignorant friends and by the by-standers, of having killed him.

Before I conclude what I have to say concerning the treatment, I may mention that as soon as the patient is fairly convalescent, and is able to be removed, nothing will be of more service to him than a change to a pure country air, or to the sea-side, on the west, or the south coast of England.

^{*} *Histoire des Phlegmasies ou Inflammations chroniques.* Par F. I. V. Broussais. 3me Edition. Tome 2me. P. 462.

I may also mention, that at this period, when not only has the last-remaining vestige of inflammation been removed, but the stomach has been brought down to what I call the point of depression, torpor, or atony, the patient will not only be able to indulge without injury in the luxury of animal diet, and a few glasses of wine, but, in point of fact he will receive particular benefit from them. He will find them to drive away the slight head-ache which sometimes lingers, and the remaining pain in the back, and limbs, chasing the languor and lassitude both of body and mind, and imparting to each a vigour and elasticity to which the patient has probably been long a stranger. The difficulty is to hit the exact period.

With regard to the diet and regimen of a person who has recovered from gastro-enteritis, we will say, in the form of indigestion, but who is fearful of relapsing, I should feel disposed to say he ought to rise at six or seven in the morning, according to the season of the year. He should shave and dress for the day; washing his head and feet daily in *cold* water.

I should recommend him to breakfast on a biscuit or two, and a basin of milk about luke-warm, or a basin of Irish moss dressed with milk and loaf-sugar.

I think he ought to dine between one and two o'clock. He may eat a little of the lean of roasted or boiled beef or mutton, a very small quantity of well-boiled potatoes, or parsnips, or turnips and

carrots. He may afterwards eat of any of the puddings I have already recommended; but of no kind of pastry whatever, in the shape of either puddings or pies. In conclusion, he may take, in moderation, any of the fruits I have before mentioned. He should drink toast-water with his dinner, and at the close, two or, at the utmost, three glasses of sherry-wine.

For a change he may take soup, fowls, hare, partridge, or grouse; but fish of all kinds he should avoid. He should not take bread at dinner, but biscuit.

At the hour of tea he may take cocoa and biscuit; and his supper may be similar to his breakfast. He should retire to rest about ten in the evening.

As diet is of so much importance in this disease, I shall not think that I descend if I stop a moment to instruct you how to prepare certain of the articles which are likely to be employed.

To prepare barley-water; you must take care you do not use any pot for boiling it that is not tinned in the inside. Iron pots untinned, which are used in poor people's houses, give the liquor a dark inky appearance, which is very repulsive to the eye at least. Take of pearl barley, two ounces; first wash off all foreign matters which adhere to the barley with a little cold water; then extract the colouring matter by boiling it a little with about half a pint of water; throw this water away, and put the barley thus purified into five pints

of boiling water, which is to be boiled down to one half: then strain. If required, there may be added to every pint of this decoction an ounce of gum-arabic, and an ounce or two ounces of refined sugar. Rice-water is made in nearly the same way as barley-water, and may have the same addition of gum-arabic and sugar. They may both of them have also the addition of a little lemon-juice, or citric-acid; you will recollect that fifteen grains of the acid equals a table-spoonful of lemon-juice.

To make linseed-drink; take three large spoonfuls of linseed, two ounces of liquorice-root sliced, a quarter of a pound of figs, three quarts of water, boil down slowly to two quarts; then strain: add a quarter of a pound of sugar-candy, and the juice of one lemon. To be drunk warm. If there is diarrhea, the lemon may be omitted.

To make rice-pudding; take one heaped table-spoonful of the best Carolina rice, thoroughly washed with cold water, two ounces of fresh butter with the salt washed out of it, one ounce of pounded loaf-sugar, one pint and a half of new milk, and a little lemon-peel. Put them into a slow oven, and when they begin to simmer, stir them every five minutes for the first half hour. Continue in a slow oven for four hours longer. Biscuit-pudding is made in very much the same manner; except that the biscuit must be broken into small pieces and soaked in cold water all night.

I shall now present to your notice a case of gastro-enteritis which occurred in my practice upwards of two years ago, and which I consider to show the disease in a very genuine and very usual form.

CASE I.—Gastro-enteritis acuta; under the form of mild nervous fever.

Mary Towns, a married woman, aged 33 years, came to me on the 10th February, 1831. She had every appearance, in her countenance and manner, of labouring under mild typhus. Upon questioning her I found she had pain across the epigastrium and in her back, aching pains in the limbs so that she could hardly walk, with a feeling of great weariness. She says that when she presses her stomach, she feels as if something were decayed in her inside. When she walks in haste, head-ache comes on. Is very liable to fright. Has much palpitation at the heart. She admits that she is more hasty and ill-tempered, than when in her usual health; expresses herself that she wishes every thing done in a moment. She is liable to sobbing and sighing. Feels always anxious to go to bed, but does not sleep well. Her dreams are always frightful; for instance, she dreams about church-yards, and graves, and dead persons, and corpses laid out, and thinks in her dreams she sees her father and mother, who have been dead six and eight years. Sometimes she dreams of being in danger of being drowned in the sea, in a flooded river, or in a canal. She says she feels as if she could die at any moment. Tongue is foul. Bad taste in her mouth. No appetite. Much flatulence. Cold sweat on her hands and feet. Skin unusually sallow. Pulse 110, feeble.

Twelve leeches to the epigastrium.

Poultices afterwards.

Castor oil as a purgative.

Farinaceous, mucilaginous, and diluent diet.

11th and 12th. Bowels well opened. Pain in the epigastrium quite gone.

Continue the diet.

14th. Pain in the epigastrium returned. Much head-ache. Pulse 104. Expresses herself that she thinks she shall die, but feels quite reconciled. One motion.

Twelve leeches to the epigastrium.

Poultices and diet as before.

15th. All the symptoms relieved. Head-ache gone. Tongue clean at the point and edges. Expresses herself as feeling more lightsome. Pulse 84. One motion.

16th. Has neither head-ache, nor pain in her limbs, nor a feeling of weariness. Tongue nearly clean. Appetite becoming good. Pulse 72. One motion. Sleeps well, and has no unpleasant dreams.

18th. Tongue quite clean. Could eat any thing if I would allow her.

In a few days more her recovery was established.

CASE II.—Gastro-enteritis chronica; form, diarrhea, with pains of the limbs which had been mistaken for rheumatic.

20th May, 1833.

John Evans, calico printer, in his 15th year, has been ill three months. He first felt pain in his thighs and the calves of his legs, and then in the epigastrium. He became very costive. Was much annoyed in the night by terrifying dreams, as of floods of water, of seeing his dead mother, &c. When admitted he had, besides the above symptoms, an incessant diarrhea, which had been either induced or aggravated by purgatives which had been recently given him by medical advice. The same advice had also applied six leeches down his leg from his knee to his ankle, under the idea of removing rheumatism. He complains at present of a very great pain in his toes. His tongue is streaked with red and

white. His aspect, and manner altogether, are expressive of the utmost anxiety.

Common poultices to the epigastrium and abdomen. To keep his bed.

Rice diet, biscuit, and barley-water.

℞ Plumbi Acetatis gr.j.

Opii duri contriti gr.ss. fiat pilula secundum artem, quartâ quâque horâ sumenda.

27th. Has rapidly improved under the above treatment. The diarrhea is restrained, and he has no pain in his toes. Ordered to omit the pills, and is allowed to sit up.

℞ Misturæ Cretæ f̄viii.

Tincturæ Opii m.xl. Misce.

Sumatur f̄j. quartâ quâque horâ.

11th June. Tongue clean and moist. Pulse regular, and healthy. Appetite good. Sleeps well and without unpleasant dreams. One alvine evacuation daily.

12th. As before. No pain except a little at the right instep and sole of the foot.

13th. Is perfectly free from pain.

22nd. Has been complaining of slight pain in the foot; which has now left him.

24th. Discharged cured.

OBSERVATIONS.

The two remarkable circumstances in this lad's case, were, the ill effects of purgatives, and the application of leeches to his leg to cure the pain which was supposed to proceed from rheumatism. The boy said, they gave him purging pills, and then they gave him something to stop the purging. Many practitioners think that purging a patient is the one thing needful, and many patients seem to be of the same opinion. This mistake in prac-

tioners appears to be at the least as old as the time of Bacon, if we may judge from a passage in his works. “*Equidem memini medicum quendam apud nos in Angliâ, practicâ celebrem, religione propè Judæum, librorum lectione tanquam Arabem, solitum dicere, Medici vestri Europæi sunt quidem viri docti, sed non nôrunt particulares curationes morborum. Quinetiam idem ludere solebat parùm decorè, dicendo; Medicos nostros similes esse episcopis, ligandi et solvendi claves habere, et nihil amplius.*”^{*} If you will inquire of any respectable veterinary surgeon, he will tell you that more horses are killed by violent purgatives than by any thing else. I believe the same of human patients. Violent purging in gastro-enteritis is absolute destruction. With regard to the mistake of treating the pain in the legs for rheumatism, all I shall say is, that it is not the first time the mistake has been made, and I dare say it will not be the last.

CASE III.—Gastro-enteritis chronica; form, cardialgia, costiveness, and flatulence.

29th April, 1833.

Sarah Threlfall, aged 28 years, married, was admitted an In-patient, on the 29th April, with symptoms of chronic gastro-enteritis. Three months ago she felt a pungent, gnawing pain in the stomach much aggravated after taking food. Continually costive. Much annoyed by unpleasant dreams, particularly of

^{*} Bacon. De Augmentis Scientiarum. Lib. iv. Cap. ij.

being in danger from being on the water. These symptoms have been increasing; and she has had, besides, pain in the calves of the legs, shoulder-blades, and occasionally in the loins. Just previously to her admission the pain in her stomach was much increased. She was very sensitive to pressure on the epigastrium. Much troubled with wind.

To lie in bed; to have a rice diet, biscuit, and barley-water.
Castor-oil when required.

Ten leeches to the epigastrium.

℞ Acidi sulphurici diluti fʒjss.

Aquæ puræ O.j. Misce.

Sumat cochlearia majora ij quater indies.

11th June. Has continued every thing; having the leeches occasionally repeated; and is much improved. Tongue moist, very slightly red at the edges and tip. Pulse 80, regular. Appetite improved. Tenderness still over the epigastrium, but the pains much relieved both in the stomach and limbs. Sleep undisturbed. Bowels costive, except when taking castor-oil.

14th. Less tenderness over the epigastrium. Feels very little pain. Appetite good. Tongue clean, but still red at the tip. Sleeps well. Bowels open; is still much troubled with flatus.

17th. Symptoms favourable. Appetite good. Feels strong. Has very little pain.

Discharged at her own request.

OBSERVATIONS.

I have very little to say about this case. It is an instance of chronic gastro-enteritis, which would require many months, probably, for its perfect cure. But patients grow tired of lying constantly in bed, and keeping to one diet. This person too, in all probability, had a wish to go back to her husband and family.

CASE IV.—Gastro-enteritis chronica; form, dyspepsia and vomiting.

4th June, 1833.

Ellen Ward, aged 39 years, a widow, was admitted on the 4th of June with symptoms of chronic gastro-enteritis. Was in the Cholera Hospital last August, for the epidemic cholera; and has never been well since. Her appetite has been bad. Her nights have been disturbed by terrifying dreams. Has had tenderness over the epigastrium, and pains in the shoulders, arms, thighs, and calves of the legs. She has sometimes passed three or four days without an alvine evacuation; and upon taking purgatives has had occasional diarrhœa with tenesmus. She has been troubled with flatus of the stomach and bowels. When admitted, all the above-mentioned symptoms were present with the addition of frequent vomiting, and much thirst.

To lie in bed. To have a common poultice constantly applied to the epigastrium.

Rice diet, biscuit, and barley-water.

A draught of citrate of potass in a state of effervescence, with two drops of the liquor morphinæ acetatis of Majendie's formula, four times a day.

11th. The above remedies have been continued, with the occasional addition of castor-oil. Is much improved. No vomiting. No thirst. Appetite is improved. Tongue moist and clean, slightly red, but the colour uniform. Pulse 72, small and feeble. Has still some pain in the loins and calves of the legs, but none on pressure of the epigastrium. Is much annoyed by frightful dreams, as of some mischief being perpetrated and of injuries being done to her.

To continue the remedies, and to have castor-oil. To have one ounce of the best French brandy daily.

11th. Evening. Bowels very loose with much straining and tenesmus.

To omit the effervescing mixture, and to take the following ;

℞ Misturæ Cretæ fʒvi.

Tincturæ Opii m.xx. Misce.

Sumat fʒjss. quater in die.

12th. Tongue clean and red ; the papillæ slightly raised. No pain. Appetite good. Bowels quiet. Has had one motion this morning. Other symptoms as before.

To continue the remedies, and to have two ounces of brandy daily.

13th. Pulse 60, low. No pain.

14th. Pulse slow and weak. No pain. Sleeps well. Tongue less red.

15th. Pulse not so weak. Spirits good. Slept badly, troubled by her dreams. No pain. Appetite good ; says she could eat more if she might have it.

16th. Bowels regular. Tongue improved. Slept well. Pulse still weak. No pain, except a little in the back.

18th. Feels much improved. Tongue natural. Bowels regular. No pain. Slept well. Feels stronger.

Allowed to sit up.

20th. Is in every respect better.

22nd. Convalescent.

24th. Discharged cured.

OBSERVATIONS.

The only observations I think it necessary to make on this case are, firstly, to call your attention to the fact that a rather larger dose than ordinary of castor-oil given by the nurse, produced a troublesome diarrhea, with straining and tenesmus, which shows that you must, in this disease, administer purgatives with a very careful hand ; and, secondly,

to mention that the patient became so low that I thought it advisable to allow her a small quantity of brandy daily, which appeared to be of service to her. I apprehended the gastro-enteritis had disappeared, and that her stomach had sunk to what I call the point of depression, at which point the stimulus of small doses of brandy frequently proves exceedingly useful. It seemed to be so in this case.

CASE V.—Temporary gastro-enteritis ; cause, accidental intoxication.

22nd June, 1833.

John Etchells, a boy in his 12th year, was brought into the Accident Room on Saturday night, 22nd of June. He held back his head, kept his mouth open, pointed to his throat, and stamped on the ground with his feet. His father says that having received his wages he was indulging himself with his usual drink, ninepenny ale, of which he gave his son about half a pint. His mother also gave him some. Almost immediately after he had drunk, he cried out "Oh! my throat!" He held back his head and complained that a pain had seized him in the throat, extending from the point of his chin, down the esophagus, to his stomach, like a sense of burning. He began also to kick with his legs in a very violent manner. When brought to the Infirmary he appeared quite rational. His tongue was clean. Pulse regular. Said his throat was hot.

Pulveris Hydrargyri Submuriatis cum Jalapâ gr. xij. statim.

23rd. Slept well. Tongue clean. Bowels well opened. Pulse natural. No head-ache. Says he is perfectly well. He says he does not distinctly recollect the occurrences of last evening.

24th. Discharged quite well.

OBSERVATIONS.

I do not know that I should trouble you with this case, were it not for my having resolved to bring under your notice the various cases without concealment or disguise.

I told you before that every person who was tipsy, had a temporary gastro-enteritis, and you see it very well exemplified in the case of this boy, who, I dare say, was not accustomed to take fermented liquors into his stomach, but whose parents seem to have resolved to make an early beginning in the teaching of him to become a drunkard.

It is truly lamentable to think of the many and serious evils which individuals suffer in their bodies, their minds, and their estates, or in their wordly condition, by the habit of taking intoxicating liquors to excess.

The first disease which is produced by this habit is usually gastro-enteritis, and this disease leads a number of other diseases in its train; such as palsy, and apoplexy, head-aches and vertigo, inflammation of the brain, and fevers of all kinds; madness, melancholy, idiotism, and premature old-age. Then this gastro-enteritis, in a way which I have already pointed out, brings on cholera, diarrhea, jaundice, and inflammation of the liver, either acute or chronic. Upon the subsiding of these affections there comes on a torpor of the liver, the consequence of its previous over-excitement; and this torpor causes obstruction to the passage of blood

through the liver. Hence we have dropsies of at least two kinds, *hydrops abdominis* and *hydrops cellularis*.

Gout and diabetes, *tabes*, atrophy and general emaciation, are also diseases intimately connected with gastro-enteritis; so likewise, I believe, is the ophthalmia of drunkards, and the *ionthus*, *gutta rosea*, *acne rosacea*, or carbuncled-face, which has become quite proverbial. But a person may have these spots on the face merely from the existence of a chronic gastro-enteritis, without his being a drunkard.

Another disease which has, I apprehend, its origin in gastro-enteritis, is, the *delirium tremens*, or drunkard's delirium, and as I shall, very probably, not have another opportunity of mentioning this disease, I shall seize the present occasion of saying a few words concerning it.

This disease is called in Latin, *delirium tremens*, *mania a temulentia*, *mania a potu*, *encephalitis tremefaciens*; it is styled in French, *le délire tremblant*, *le délire nerveux*, *la folie des ivrognes*; in English it is known by the name of the drunkard's delirium.

The disease is generally produced by the abuse of spirituous liquors, but sometimes it shows itself after wounds and serious operations, and after the attempt at suicide. It consists in a delirium of a particular nature, accompanied by agitation and

trembling of the muscles, and quite independent of any inflammation of the brain.

The attack of delirium tremens is, in general, sudden; that from hard drinking usually breaks out in the middle of a drinking bout, or a very short time afterwards. The patient knows his friends and those about him, and will readily answer any questions which are put to him. But he pours forth an incessant stream of idle and unmeaning talk; sometimes about one thing, sometimes about another. At one time he imagines men are breaking into the house; at another time he fancies he hears men in the cellar, or the garret, conspiring against him. Every sound he listens to he thinks is intended to injure him. Even if pretty quiet, so as to be left to himself for the purpose of obtaining sleep, he will leave his chamber about every quarter of an hour, and call from the head of the stairs to have all the doors locked. And even when well enough to proceed about his business he will leave his affairs, and come and tell you with a most serious and grave countenance that he hears the people in the house at that moment. He will repeat the words which he imagines them to utter, and ask you if you do not hear them. "There, Sir," he will say, "there is one of them at this moment calling out to me, You thief! did you not hear him?" At another time the patient fancies that his wife, or his children, are selling him, or

betraying him, or squandering his property. All this is accompanied by a trembling of every part of the system, by a high colour of the face, injection of the eyes, redness and heat of the forehead. Above all things the patient is troubled with a long-continued and most obstinate want of sleep.

Now, whatever we may suppose to be the proximate cause of this disease, there is only one indication of cure; which is, to procure sleep. If you procure sleep, you cure the patient. You must not bleed. I repeat, you must not bleed. You must give laudanum; and you must be kind enough to remember that, until you reach a dose large enough to procure sleep, laudanum does not act upon the system with an accumulative force.

Therefore, begin with a hundred drops of laudanum; in an hour give a hundred and twenty drops; in another hour give a hundred and forty drops; in another hour a hundred and sixty drops; and so forth, increasing by twenty drops every hour, until sleep shall have been procured.

But, these are not the only diseases brought on, or much aggravated by the habitual use of strong liquors. Rheumatism, pleurisy, gastritis of the serous membrane, enteritis of the serous membrane, peritonitis, cystitis, and stone or gravel, are all either produced or increased by the same cause.

An habitual trembling or unsteadiness of the hand, sickness and vomiting in the morning, cold shiverings, parched mouth and incessant thirst,

heated skin, repeated head-ache, in short all the symptoms of a regular diary-fever may be expected, as the concomitants or pursuivants of daily, drunken, debaucheries.

There is another state of the system to which habitual drunkards are said to be liable, which is perhaps still more horrible than any I have hitherto mentioned. It is that state which renders the body susceptible of catacausis,—or combustion, either spontaneous or excited by very slight causes. Of this there have been numerous instances. Lecat reports the case of Madame Boiseon, aged eighty, very lean, and having drunk nothing but brandy for several years. She was sitting in her arm-chair before the fire, and was left by her servant for a few moments. At her return the servant saw her mistress all in flames. She cried out, and brought people to her assistance. They endeavoured to extinguish the fire with the hand; but the fire stuck to the hand as if it had been dipped in flaming brandy or oil. Water was brought, and thrown in large quantities upon the lady, but the fire appeared only the more violent. It was not extinguished until all her flesh had been consumed. Her skeleton, very black, remained entire in the arm-chair. The chair itself was only a little scorched. Only one leg and the two hands of the lady were detached from the other bones. It is not known whether or not the lady's clothes had caught fire at the grate. The lady was in the same place in which she sat every

day; the fire was not extraordinarily great; and she had not fallen down.*

I need not weary your patience by reciting to you a number of cases of this kind. Suffice it to say that there are many described by authors of good authority.

The late celebrated Dr. Darwin was so convinced of the evils flowing from the use of fermented liquors, that he made a resolution, to which he firmly adhered, never to touch them. He has devoted some very beautiful lines, in his Botanic Garden, to the cause of temperance.

“ Drink deep, sweet youths,” seductive VITIS cries,
 The maudlin tear-drop glittering in her eyes;
 Green leaves and purple clusters crown her head
 And the tall Thyrsus stays her tottering tread.
 —Unwary swains, with sweet assuasive smiles,
 The harlot meshes in her deathful toils;
 “ Drink deep,” she carols, as she waves in air
 The mantling goblet, “ and forget your care.”
 O'er the dread feast malignant Chemia scowls,
 And mingles poison in the nectared bowls;
 Fell Gout peeps grinning through the flimsy scene,
 And bloated Dropsy pants behind unseen;
 Wrapped in his robe white Lepra hides his stains,
 And silent Frenzy writhing bites his chains.

So when PROMETHEUS braved the Thunderer's ire,
 Stole from his blazing throne ethereal fire,
 And, lanterned in his breast, from realms of day
 Bore the bright treasure to his Man of clay;—
 High on cold Caucasus by VULCAN bound,
 The lean impatient Vulture fluttering round,
 His writhing limbs in vain he twists and strains,
 To break or loose the adamantine chains:
 The gluttonous bird, exulting in his pangs,
 Tears his swoln liver with remorseless fangs.†

* Lecat. Mémoires sur les incendies spontanés.

† Botanic Garden. Vol. 2nd.

The fable of Prometheus having stolen fire from heaven, and having, for this crime, been condemned to have his liver continually gnawed by a vulture, has been supposed to adumbrate the invention of distillation, with the drinking of ardent spirits, and the painful diseases of the liver which this practice almost certainly engenders.

Now, let us consider for a few moments, the effects of intemperance upon the estate and worldly condition. Look at the poor, tremulous, nervous, head-achy, spiritless, maudlin, red-eyed, purple-nosed, pimpled-faced creature, with hardly energy enough to wash himself with cold water in the morning. His tongue is foul, his breath offensive, his hand trembling, and his walk languid. If he speak, his speech bewrayeth him; if he write, his writing discloses the secret. The habit has crept upon him with slow and silent step,—*suspenseo pede*,—with a most stealthy and cat-like pace. But, when it has overtaken its victim, when the meshes of its net are thrown around his shoulders, then are his struggles as vain as those of the fly in the spider's web. How many young men do we see, who might have led a life of usefulness and respectability, utterly ruined in their prospects by this fatal habit of indulgence in strong liquors? Their health destroyed; they themselves obliged to give up valuable and lucrative appointments; neglecting their business so much that it fails to support them, and they fall into the jaws of bank-

ruptcy ; at length, shunned by their former friends, pitied by their former enemies, envied by none, they look back with unavailing regret to the time when they

“ have seen better days ;

“ And have with holy bell been knoll'd to church ;

“ And sat at good men's feasts ;”*

to this time they look back with unavailing regret, whilst the future offers them no prospect except the mad-house, the poor-house, or the suicide's grave. But all this is so well described by Dr. Armstrong, that I cannot do better than conclude by quoting his lines.

“ But most, too passive, when the blood runs low,
 Too weakly indolent to strive with pain,
 And bravely, by resisting, conquer Fate,
 Try Circe's arts, and in the tempting bowl
 Of poisoned nectar, sweet oblivion drink.
 Struck by the powerful charm the gloom dissolves
 In empty air ; Elysium opens round ;
 A pleasing phrenzy buoys the lighten'd soul,
 And sanguine hopes dispel your fleeting care ;
 And what was difficult, and what was dire,
 Yields to your prowess, and superior stars :
 The happiest you of all that e'er were mad,
 Or are, or shall be, could this folly last.
 But soon your heaven is gone ; a heavier gloom
 Shuts o'er your head : and, as the thundering stream
 Swoln o'er its banks with sudden mountain rain,
 Sinks from its tumult to a silent brook ;
 So, when the frantic raptures in your breast
 Subside, you languish into mortal man.
 You sleep, and waking find yourself undone ;
 For, prodigal of life, in one rash night,
 You lavish more than might support three days.
 A heavy morning comes ; your cares return

* Shakspeare. As you like it. Act 2. Scene 7.

With tenfold rage. An anxious stomach well
 May be endured ; so may the throbbing head ;
 But such a dim delirium, such a dream
 Involves you ; such a dastardly despair
 Unmans your soul, as maddening Pentheus felt,
 When, baited round Cithæron's cruel sides,
 He saw two suns, and double Thebes ascend.
 You curse the sluggish Port ; you curse the wretch,
 The felon, with unnatural mixture, first
 Who dared to violate the virgin Wine.
 Or on the fugitive Champaign you pour
 A thousand curses ; for, to heaven it rapt
 Your soul, to plunge you deeper in despair.
 Perhaps you rue even that divinest gift,
 The gay, serene, good-natured Burgundy,
 Or the fresh, fragrant viutage of the Rhine :
 And wish that heaven from mortals had withheld
 The grape, and all iutoxicating bowls.

Besides, it wounds you sore to recollect
 What follies in your loose unguarded hour
 Escaped. For one irrevocable word,
 Perhaps that meant no harm, you lose a friend.
 Or in the rage of wine your hasty hand
 Performs a deed that haunts you to your grave.
 Add that your means, your health, your parts decay.
 Your friends avoid you ; brutishly transformed,
 They hardly know you ; or, if one remain
 To wish you well, he wishes you in heaven.
 Despised, unwept you fall, who might have left
 A sacred, cherished, sadly-pleasing name :
 A name still to be uttered with a sigh.
 Your last disgraceful scene has quite effaced
 All sense and memory of your former worth.”*

CASE, VI.—Gastro-enteritis chronica ; form, hysteria.

1st July, 1833.

Mary Booth, aged 25 years, unmarried, works in a cotton-factory. Has been ill two years. Says she has never felt well since she bathed at Liverpool. She now complains of a sinking

* Armstrong. Art of Preserving Health. Book 4th.

as if she were going to faint. This is generally relieved by eating. Her appetite is rather increased than diminished. Tongue rough and slightly red at the tip and edges. Is much troubled with wind. Bowels regular. Pulse weak. Has occasionally pain in the back, hips, thighs, legs, and calves. No pain in the epigastrium on pressure. Has been troubled with unpleasant dreams. Catamenia regular.

Common poultices to the epigastrium and belly.

To lie in bed.

Rice diet, biscuit, and barley-water.

Castor-oil occasionally.

2nd. Is much better. Slept well. No sinking.

3rd. Tongue clean. Pulse stronger.

4th. Has been troubled with globus hystericus.

5th. Much better.

6th. No complaint.

13th. Had an hysteric fit this morning, which subsided upon her being threatened with the affusion of cold water.

14th. Has no unhealthy symptom. A bucket of cold water is kept in readiness, but she has had no recurrence of the fit.

15th. Discharged cured.

OBSERVATIONS.

Much will not be required to be said on this case. I would, however, just call your attention to the fact of the great efficacy of the fear of an affusion of cold water in removing or preventing the hysteric paroxysm; and I can assure you, from much experience, that if the fear be so efficacious, the real affusion is still more so. It is, in fact, an infallible remedy; the principal objection against it being that females are exceedingly averse from it, and do not like to be cured of hysterics in this

manner. I have never known but two females of the better class of society who took this remedy in really good part. You must, therefore, be guided by circumstances, and cure your patient either by this ready, infallible, and radical remedy, or go on for weeks, with aloes, assafoetida, valerian, castor, and ether, accordingly as you judge your patient and her friends will be the better pleased.

CASE VII.—Gastro-enteritis chronica.

15th July, 1833.

Elizabeth Schofield, aged 30, married, and a weaver, has been ill eighteen months. Her complaint first came on with pain in the stomach, accompanied by pains in the back, shoulders, arms, thighs, and legs, rendering her unable to stand or follow her employment. Head-ache. Sleep disturbed by alarming dreams. Tongue streaked with red and white. Great thirst, calling for frequent draughts of cold water. Unpleasant taste in the mouth. Bad appetite. Bowels costive. Much wind. Skin moist. Pulse 110, weak. No catamenia for seven weeks.

Ten leeches to the epigastrium. Poultices afterwards.

Castor-oil occasionally.

To lie in bed; and take rice diet, biscuit, and barley-water.

16th. Stomach much relieved by the leeches. Tongue clean. Less pain in the limbs. Bowels opened by the oil.

18th. Felt much wind in the bowels which prevented her sleeping.

℞ *Liquoris Morphinae Acetatis* m.x.

Misturæ Acidi sulphurici f̄vi. *Misce.*

Sumatur f̄jss. *quater quotidie.*

19th. Slept well. Does not complain of any pain except in the back. Tongue clean. Appetite not improved. Pulse 90, regular but feeble.

20th. Slept better. Pain in the back continues: none in the epigastrium or limbs. Bowels open. Pulse stronger.

22nd. Complains of pain in the thighs and legs: that of the back not diminished. Bowels open.

23rd. To-day her spine was examined. A slight curvature backwards was observed in the lumbar vertebræ. This is not tender on slight percussion; but she refers her chief pain to it. She has no numbness in the thighs or legs; no difficulty in voiding her urine. Has received no injury in her back, but says she first perceived the deformity eighteen months ago, at the time of the first symptoms of her present complaint. The *ossa pubis* are unusually prominent.

To have a blister on the lumbar vertebræ.

24th. Less pain in the back since the blister. Bowels costive.

To take two drachms of castor-oil.

25th. Head-ache and pain in the back. Bowels costive.

℞ Misturæ Magnesiæ Sulphatis fʒjss.

Fiat haustus statim sumendus.

26th. The draught opened her bowels. Has less pain in the back. Feels much better.

28th. Feels sick and faint. Flatulence very troublesome. Bowels open. Appetite bad.

31st. Feels better, but is still weak. Much troubled with flatulence. Tongue clean. Appetite better. Bowels opened by a draught.

1st August. No material pain. Pulse still feeble.

2nd. Much improved. Wind less troublesome. Pulse stronger.

4th. Tongue clean. Appetite improved. Bowels open.

5th. Tongue clean, but red at the tip. No pain except when sitting up. Feels much better.

8th. Has felt very ill since five this morning, when she had a paroxysm of cold shivering. She felt very sick, and vomited a small quantity of yellow bitter matter. Has much pain in the belly, which is tender on pressure. She is slightly purged. Tongue is furred. Has a very bad taste in the mouth. Pulse 104, feeble.

To omit all the other medicines.

℞ Tincturæ Opii fʒj.

Misturæ Cretæ fʒvi. Misce.

Sumatur fʒjss. quater quotidie.

9th. Feels much better. No pain or sickness. Tongue cleaner. Pulse 90. Bowels regular.

10th. Is better. Feels comfortable. Is rather stronger. Very little pain. Appetite improved.

11th. Felt the usual pain when standing, but is perfectly free from it when lying down.

12th. Discharged, at her own request, relieved.

OBSERVATIONS.

This I consider to be a case of pure gastro-enteritis. That it was not a case of inflammation of the bones of the spine was, I think, shown by the absence of pain upon percussion of the back, by the absence of paralysis of the urinary bladder, by the absence of torpor and paralysis of the lower extremities, and by the absence of pain when lying in bed. To these negative signs we may add the positive symptoms which she exhibited of the existence of gastro-enteritis, and we shall not be at much loss for the real nature of the disease. However, chronic gastro-enteritis is so tedious a complaint, and requires so much quiet perseverance in the patient, so long a repose in bed, and such persistence in a particular diet, not the most savoury or stimulating, that I was not surprised that this patient was desirous of being discharged before she was quite well. In fact, you can hardly conceive, unless you have watched these patients well, how

thankless an office it is to attend a case of chronic gastro-enteritis. They want a change of diet; they want to be allowed to sit up; and as soon as they are a little better, they want to be allowed to go out. And, as soon as they get out, and go home, a recurrence to their old habits of diet, and of living in general, almost universally brings a return of their complaint.

CASE VIII.—Gastro-enteritis chronica.

12th August, 1833.

Emma Edge, unmarried, 16 years of age, works in a silk-factory, first became ill eighteen months ago, at which time she had inflammation of the bowels. She was bled, and felt relieved, but has had pain in the belly ever since, sometimes acute, at other times not very urgent. Bowels irregular, sometimes loose.

When admitted, pulse 120, skin hot and dry, tongue furred, and red at the tip, appetite bad, bowels open but not loose. Much pain in the right hypochondrium, increased by pressure or by coughing. Has never menstruated. Feels occasionally pain in the loins, and down the thighs and legs. Urine high coloured.

To have twelve leeches to the right hypochondrium.

A blister-plaster afterwards.

R Hydrargyri cum Cretâ gr.v.

Pulveris Ipecacuanhæ compositi gr.x.

Fiat pulvis quater quotidie sumendus.

13th. Feels better this morning. Less pain. Bowels open once. Feces loose. Tongue red. Pulse 108. Sleeps badly, and is troubled with unpleasant dreams. Right hypochondrium very tender to pressure.

To have ten leeches to the right hypochondrium.

14th. Feels much better. No pain this morning. Bowels regular. Pulse 100.

15th. Tongue looks better, but the appetite is not improved. Has a little dry cough. Pulse 120, small. No pain or tenderness. Sleeps badly.

17th. Pulse 130, very feeble. Tongue very red. Bowels moved twice. Is free from pain. No appetite.

18th. Had considerable pain in the abdomen during the night. Tongue still red. Pulse 140. Bowels quiet and regular.

19th. Does not complain of any pain, except in the left leg, which has been for some time ulcerated.

To have a poultice to the leg.

20th. Pulse 104. Tongue red, streaked with white. Skin hot. Continues to feel occasional pain in the abdomen. Appetite improved. Bowels regular. Has no pain in the ulcerated leg, but has some down the right leg and thigh.

21st. Complains of pain in the belly, relieved by pressure. Has a bad taste in her mouth. Pulse 120, feeble. Bowels quite regular.

To have ten leeches to the belly to-morrow morning.

22nd. Had much pain in the night, relieved by the leeches. Pulse 120. Skin rough and dry. Tongue streaked with red and white. Bowels moved once.

23rd. Very little pain in the abdomen, but considerable pain in the head. Feels sick and faint. Pulse 120.

To have three leeches to each temple.

24th. No pain in the head or abdomen. Bowels regular. Tongue clean. Pulse still quick.

25th. Is free from pain. Very little complaint.

26th. No pain, but feels very feeble. Tongue clean. Bowels regular. Pulse 100, weak.

To omit the powders.

℞ Tincturæ Opii fʒss.

Misturæ Ferri compositæ fʒviss. Misc.

Sumatur fʒjss. quater quotidie.

27th. Feels very sick and faint. Pulse 130, feeble. Skin dry. Tongue red but clean. Appetite rather worse. Bowels regular and natural.

28th. Better this morning, but very weak.

29th. Feels weak and faint, but has no pain.

30th. Feels better. Tongue clean. Appetite improves. Bowels regular. Pulse 120, feeble. Is free from pain.

31st. Has occasional pains in the abdomen. Tongue red and streaked with white. No appetite. Much thirst. Pulse quick and feeble.

To lie in bed, and have rice diet, &c.

To have common poultices to the belly.

To have two ounces of best French brandy daily.

To omit the mixture.

1st September. Pulse 130, still feeble. Tongue very red and furred at the sides. Much thirst. Skin hot, and dry. Has pain in the abdomen, and some tenderness on pressure. Bowels regular. A bad cough, but no expectoration.

2nd. No pain in the abdomen, but complains of the legs and thighs.

4th. Is not free from pain. Tongue red and aphthous.

To omit the brandy.

R̄ Liquoris Morphinae Acetatis m.x.

Misturæ Acidi sulphurici f̄viii. Misce.

Sumantur f̄ij. quater quotidie.

5th. Slept much better. Tongue cleaner. Pulse less rapid. Skin cool.

6th. Tongue cleaner. No thirst. No sickness. Bowels regular. Sleeps well. No pain, except occasionally in the thighs and legs. Pulse 120, feeble and small.

9th. Pulse very feeble and quick. Tongue red, but cleaner. Has still pain in the thighs and legs; none elsewhere. Feels occasionally sick and faint. Bowels regular. Sleeps well. No cough.

10th. Is free from pain, except occasionally in the extremities.

14th. Tongue red and clean, not dry. Pulse quick and small. Bowels regular. No pain, except in the legs.

16th. Tongue still red and aphthous. Appetite not improved. Pulse very feeble and quick. Bowels open. No thirst. No pain.

17th. Legs painful. Ulcer in the one leg not healed. In other respects she is improved.

21st. Still complains of pain in the legs.

22nd. Legs much better. Tongue nearly natural. Appetite not restored. Bowels regular.

23rd. Complains of pain in the abdomen. Tongue is morbidly clean and red. Pulse quick and small.

To have six leeches to the abdomen.

24th. No pain of the abdomen, but continues to complain of her legs. Has no appetite, and is very feeble.

25th. Had much pain in her head all yesterday, but does not feel it this morning. Has less pain in the legs; none in the stomach or abdomen. Pulse still feeble and quick.

27th. Tongue still red but cleaner. Bowels regular. Feels very weak. Has a little pain in the epigastrium.

To have six leeches to the epigastrium.

28th. Feels better. Tongue red. Bowels easy. Skin hot. Pulse fuller.

1st October. Continues much the same.

To omit the mixture.

℞ Sodæ Subboratis ʒij.

Tincturæ Opii fʒss.

Theriacæ fʒij.

Misturæ Camphoræ fʒvi. Misce.

Sumatur fʒjss. quater quotidie.

3rd. Complains of head-ache. Tongue more apthous. Pulse 120, very small and feeble. Has less pain in the legs. Bowels regular. No cough.

4th. Tongue continues very red and apthous. Pulse 120, feeble. Perspired very much last night.

6th. Feels worse. Some head-ache. Tongue red. Pulse quick. Skin cool. Bowels regular.

8th. Much as before. Still complains of pain in the legs.

9th. No better.

To omit the mixture.

℞ Plumbi Acetatis gr.j.

Opii duri contriti gr.ss. Miscæ.

Fiat pilula s:a: quater quotidie sumenda.

13th. Pulse 100, feeble. Has still pain in her legs. No appetite.

15th. Feels rather better. Symptoms much as usual.

To increase the quantity of Sugar of Lead to two grains in each pill.

16th. No pains in the legs this morning.

To sit up a little; and to have some beef-tea.

21st. Says she is better.

To have some flesh-meat.

23rd. Much as usual.

To have two ounces of brandy daily.

26th. To have a blister on the epigastrium, and to have the blistered surface daily sprinkled with ten grains of the sulphate of quinine.

27th. Legs still painful.

30th. Says she has felt better since the last application of leeches. Appetite improved. Tongue less aphthous.

To have three ounces of brandy daily.

3rd November. Legs continue painful. Feels in some degree stronger and "better of herself."

5th. Pulse stronger, but irregular and quick. Tongue clean. Feels much as usual.

6th. Feels better since the application of the blister, and the sulphate of quinine, than previously. Pulse 120, stronger. Bowels regular. Appetite improved. Pain in the legs not removed. The ulcer is still open.

10th. Tongue much improved and appetite much better. Bowels regular. Pain in the legs continues.

To omit the pills.

℞ Infusi Calumbæ fʒvss.

Tincturæ aromaticæ fʒiv. Miscæ.

Sumatur fʒjss. quater quotidie.

11th. Does not feel so well this morning. Has some pain in

her belly. Was purged in the night. Tongue clean. Pulse 120, feeble.

To have one fluid drachm of tincturæ opii added to the mixture.

12th. Feels better. No purging.

14th. Feels much improved. Is stronger. Tongue clean. Bowels regular. No pain except in the legs.

16th. Continues as before, but bowels have been much relaxed.

To omit the mixture.

To take a fluid ounce and a half of the Misturæ Catechu composita four times a day.

18th. Pulse 110, weaker. Tongue clean. No purging. Seems unusually dull and depressed.

20th. Countenance very dull. Tongue improved. Pulse extremely feeble and irregular. Bowels regular. No pain in her stomach. Legs are still painful.

24th. Says she feels better. Pulse stronger. Tongue clean.

26th. Feels very sickly and weak. Pulse 120, small. No pain in her stomach, but some in her loins and down the legs. Bowels regular. Tongue improved. Appetite very bad.

29th. No improvement since last report. Pulse very quick and feeble. Tongue red, but free from aphthæ. Bowels regular. No appetite. Has occasional pain in her stomach and bowels; almost constant pain in her legs. One of her legs is still ulcerated. No catamenia.

1st December. Feels rather better this morning. The symptoms the same as in last report.

2nd. Made a home-patient, to be visited at her own residence.

OBSERVATIONS.

This, gentlemen, was a case of obstinate chronic gastro-enteritis, which probably no means within our reach could possibly cure.

It, most likely, had its origin in the absence of menstruation at the proper period; when the irritation which should have taken place in the uterus transferred itself in the shape of inflammation to the mucous membrane of the alimentary canal.

After the various observations which I have made to you upon this patient, both at her bedside and in the lecture-room at the several lectures which I have delivered since she came into the house, it will not be necessary for me to add much on the present occasion.

I would, however, call your attention to two circumstances; first, the dry cough which she had; second, the continual pain in her legs.

As to the cough, I believe that, after all you have heard from me on the subject, you will know sufficiently well how to account for it without supposing the existence of any disease of the chest, although it may certainly prove the forerunner and cause of such a disease.

As to the pains in the thighs and legs, you cannot possibly, after all I have said in these lectures, fall into the vulgar mistake of supposing them to be "rheumatic." And if you had a patient of this kind, you would not be likely to aggravate the disease of the stomach by administering the *vinum colchici*, or the ammoniated tincture of *guaiacum*, for the purpose of removing the supposed "rheumatic pains." Yet, this is a mistake which is every day made.

The fact, in this case, I believe to be, that the disease of this patient is absolutely incurable; and that if the patient were to die to-morrow, and were to be inspected, the stomach would be found completely disorganised, as I described to you in my opening lecture on gastro-enteritis, upon the 15th of June last. I believe we should find that the walls of the stomach would be altogether thickened, and, as we may say, hypertrophised, probably to the thickness of half an inch; and that the stomach itself and its two apertures would be considerably contracted in dimensions from the effect of this thickening. This state of the stomach is called by some "scirrhus or cancer;" but this is an improper term, as it has nothing of the nature of scirrhus or cancer about it. It is a mere thickening from a long-continued inflammation. You may recollect that about six weeks ago I showed you a stomach of this kind, which had belonged to a woman who had been a patient in this house with all the symptoms of gastro-enteritis, before these Clinical Lectures began, and of whom it had been declared by a non-medical person in the house, that she ailed nothing.

I believe that in addition to this thickening and contraction of the stomach would be found inflammation and ulceration of the small intestines, as indeed is proved by the liability of the patient to diarrhoea.

CASE IX.—Gastro-enteritis chronica.

23rd September, 1833.

Robert Wroe, married, a small-ware weaver, aged 38, says he has been ill eleven years. The complaint began with incessant vomiting the moment after taking food. The food was returned in the same state as it was swallowed, except that milk was curdled. Had at that time no pain, and his bowels were regular. He became very feeble, and obtained no mitigation of the vomiting by any medicine. About four years ago the vomiting was attended with pain extending over the stomach and abdomen, and to the back, most acute over the left side of the epigastrium, and sometimes worse than at other times, but never remitting. At that time the bowels were costive, but they have latterly become much purged by taking opening medicine. The pain has also been more acute within the last five weeks; but the vomiting is less frequent.

On admission, the tongue was rather dry, covered with a white fur, red at the tip, with the papillæ much raised. He has a nauseous taste in his mouth. His appetite is better now than it has been. He has a sense of heat in the stomach, and sometimes in the throat. He has not vomited much this last week or two. He has acute pain all over the epigastrium and abdomen, particularly over the cardiac and pylorus orifices of the stomach and over the umbilicus, increased on pressure. Feels sick in the mornings. Has much thirst. Bowels are loose, and when at stool he feels as if all the intestines were dragged out of the abdominal cavity. No pain in the head or limbs. Is occasionally troubled with wind. Sleeps badly, and is frequently annoyed by terrifying dreams. He has much debility and depression of spirits. Pulse 100, very feeble.

To have twenty leeches to the abdomen.

To have common poultices afterwards continually.

℞ Tincturæ Opii m.xl.

Misturæ Cretæ f̄ʒvi. Misce.

Sumatur f̄ʒjss. quater quotidie.

To have rice diet, biscuit, and barley-water.

24th. Passed a bad night, but feels better this morning. Tongue cleaner. Pulse 96. Has felt sick, but has not vomited. Only one motion to-day.

To have twelve leeches to the abdomen.

25th. Feels wonderfully improved. Has not felt the least pain since the leeches. Passed a comfortable night. Tongue clean. Bowels have not been at all purged. No vomiting; feels rather sick. Says he feels better than he has felt for several years.

26th. Does not complain of any pain; but the epigastrium is still very tender to pressure. Bowels have not been open since the 24th. Tongue clean, red at the tip, and rather dry. Very little thirst. Pulse 90, small and regular. Slept much better. Feels sick, but has not vomited.

To take half an ounce of castor-oil immediately.

27th. The castor-oil produced three or four loose motions. Complains of some pain in the stomach and bowels. Tongue red and dry. No vomiting. Pulse 100, small and weak.

To have twelve leeches to the epigastrium.

28th. Pulse slow and small. Skin cool, and clammy. Tongue white. Purged once.

29th. Much better. No pain. Tongue clean.

30th. A comfortable motion this morning. No pain; but feels feeble.

1st October. Still improving. No diarrhea. No vomiting. No thirst. Appetite good. Tongue clean, though rather red. Pulse 90, small.

2nd. Had a comfortable motion this morning, but attended with temporary pain in the left iliac region. Is now quite free from pain. Tongue very red at the tip, but clean. Pulse 90, small and feeble. Appetite better. No sickness, except occasionally in a morning. Has a very nauseous taste in the mouth.

3rd. No pain. Feels well. Pulse 90, stronger. Bowels not purged. Tongue cleaner.

4th. Bowels have not been moved for two days. Complains of a little strangury. Pulse quick and hard.

To have half an ounce of castor-oil immediately.

5th. The oil has produced much sickness and vomiting as well as purging. Tongue white. Pulse small. He feels rather better this morning.

6th. Has felt considerable pain in the abdomen, and much griping as he terms it. Thirst not urgent. Bowels open once. Tongue cleaner.

To have ten leeches to the abdomen.

Poultices afterwards.

7th. Feels well to-day. Had one motion attended with pain yesterday, but none this morning. Tongue nearly clean. Pulse 80, soft. Has some tenderness on pressure over the right and left hypochondrium, but not material.

8th. Coughed a little in the night. No pain. Bowels not open since the 6th. No sickness or vomiting. Appetite good. Tongue better. Pulse 85, stronger.

9th. Feels well, as he did yesterday. Bowels comfortably open.

10th. Tongue nearly clean. Feels quite well. Can bear pressure on the stomach or abdomen. No purging or vomiting.

11th. Has intense pain on either side, very acute on pressure. Has also pain in his back. Bowels comfortably open yesterday and to day. No sickness. Pulse stronger.

To have twelve leeches to the painful part of the abdomen.

12th. Quite free from pain. Bowels not open since yesterday. Ails very little, except he feels, to use his own words, "rather qualmish in a morning."

13th. Pulse 80, soft. Tongue cleaner but very red. Bowels not open since the 11th. Complains of "a working inside, as of something alive."

14th. Has been very sick this morning; vomited his biscuit. Feels swelled. Has a very offensive taste in his mouth. Tongue red and rough but clean. Cannot bear pressure over his right side. Pulse 85, not so feeble. Bowels were comfortably open yesterday.

To have six leeches to the right hypochondrium.

15th. Feels much relieved. Expresses himself as "made over

again." Tongue clean. Less pain on pressure. Bowels not loose. Pulse 80, feeble.

16th. Feels sick and faint after every evacuation from his bowels. Had a motion this morning, which produced some sickness; but still he says, he feels better than he has felt for the last eleven years.

17th. Feels much worse this morning. Has vomited almost incessantly since yesterday morning. The vomiting has been attended with much pain in the epigastrium, increased on pressure. He feels extremely sick at present. The pain is relieved by vomiting. Pulse slow and feeble. Tongue furred. Bowels not open since yesterday.

To have six leeches to the epigastrium.

To take one fluid ounce of the *Mistura Aetheris cum Opio*, every third hour.

18th. Feels much relieved. Vomiting and pain have subsided.

To take two grains of the *Hydrargyrum cum Cretâ* four times a day.

20th. Pain diminished. Feels sick, but has no vomiting. Tongue furred at the base, very red at the tip, and glazed. Complains that his saliva is nauseous to his taste, and that his inside stinks. Bowels were open yesterday, and he had considerable pain and uneasiness afterwards. Pulse 80, very small and feeble.

21st. Pulse 100, still feeble. Had a motion yesterday afternoon, and felt as usual very faint for an hour afterwards. Has pain and a sense of burning in his stomach. Feels sick and qualmish, but has no vomiting. Tongue is cleaner. Sleeps badly.

To omit the Powders.

To take one mercurial pill night and morning.

22nd. Is free from pain this morning. No motion. Tongue, &c. as before.

23rd. Had a motion yesterday afternoon. It was not loose. Has felt worse ever since. Much pain and "working" in his belly. Sickness; no vomiting. Extreme languor. Pulse 84, very small

and feeble. Tongue as before. Cannot bear pressure, particularly over the umbilicus. Refers the principal pain to that neighbourhood.

24th. Still feels sick and complains exceedingly of the "working" in his stomach. Cannot bear pressure on any part of the epigastrium. No motion since last report. Says his spittle is offensive to swallow, and he can hardly bear the stench from his inside. Pulse 85, small and feeble. Tongue clean but red.

25th. Is considerably better this morning. Bowels not moved. Less pain. No vomiting. Pulse 80, small and feeble. Tongue red and dry. The "working" continues.

To have beef-tea.

26th. Feels much easier. Bowels were opened yesterday. Tongue appears clean. No thirst. Skin cool. Pulse 90.

27th. Has felt better since the last motion, but is very feeble. No vomiting. Does not sleep comfortably.

28th. Had a motion to-day, and felt more comfortable afterwards than he has felt for some time previously. Feces copious, not loose, rather greenish. Still complains of the beating or "working." Pulse 85, feeble.

29th. Feels comfortable to-day. None of his usual symptoms after his bowels were opened this morning. Tongue clean. No vomiting.

30th. Has had two motions, and has felt very ill since. Pulse 90, feeble and small. Tongue red but clean. Has much pain and heat of the stomach.

1st November. Has had a motion this morning, rather clay-coloured, but of a good and natural consistence. It has been followed by excessive pain in his stomach and bowels. He vomited considerably yesterday. He says the pain is most acute at his right side, but he feels it more or less all over his inside. Tongue pretty clean, but very red at the tip. Pulse 85, feeble. He is very weak and languid. Has no sleep. Has some appetite but dares not eat, from the pain which eating brings on.

2nd. Has had very acute pain in the abdomen and left side ever since his bowels were moved. Stools bilious and nearly

natural. Pulse quick and very feeble. Not much thirst. Has vomited frequently.

3rd. Had a motion this morning, which was solid and bilious. Had some pain afterwards, but of shorter duration, and less acute than it used to be. Tongue very red at the tip and edges. Feels much easier.

4th. Has still pain after going to stool. Motion healthy.

5th. Pain continues with little intermission. Feces bilious and solid.

6th. Has had a bad night. Vomited considerably yesterday. Pain in his inside has been most acute. Dares not take any food, because it increases his sufferings. Has had a motion this morning. Feels weaker every time he has a motion. Pulse feeble and fluttering. Cannot sleep. Finds no relief from anything.

7th. Pain and vomiting are urgent. Can find no rest night or day.

To omit the pills and the mixture.

R Hydrargyri Submuriatis gr.j.

Opii duri contriti gr.ss. Misce.

Fiat pilula s:a: sexties quotidie sumenda.

8th. Still vomits and has no relief from pain. Other symptoms as before.

To have six leeches to the epigastrium.

To have the hot bath every night.

9th. No abatement of the symptoms. He wishes to go home.

11th. Vomiting allayed. Pain excessive. No cessation.

Discharged at his own request.

27th. He came up as an out-patient, apparently pretty well, and free from suffering.

CASE X.—Gastro-enteritis chronica.

21st October, 1833.

James Dawson, a weaver, married, and in the 48th year of his age, says he has been ill eight months. The complaint began with vomiting and debility. The bowels were very irregu-

lar. He had pain continually in the stomach, and subsequently between his shoulders and in the small of his back. Has hitherto received no relief from medicine.

On admission, tongue white and coated, but red at the tip; taste bitter; appetite capricious; he can sometimes eat very well, at other times not at all; half an hour after each meal he feels sickly, and has considerable pain, which in general is relieved by vomiting; he seldom vomits except after taking food; the ejected matter tastes sour, and looks like rice-water. The pain begins by being very acute like a sensation of burning, at first confined to a small spot corresponding to the ensiform cartilage, but afterwards spreading over the whole epigastrium. Bowels have this last week been very loose. He has some pain between the shoulders. Much troubled with wind. His nights are much disturbed by dreams. Pulse 84, feeble. Complains of much languor and debility.

To lie in bed.

To have rice diet, biscuit, and barley-water.

R. *Liquoris Morphinae Acetatis* m.xv.

Misturæ Acidi sulphurici f̄vi. *Misce.*

Sumatur f̄jss. *quater quotidie.*

23rd. Has not vomited, but feels sick. Bowels only once moved since his admission. The pain in the epigastrium is very urgent. Tongue cleaner. Slept better. Pulse 70, feeble.

To have twenty leeches to the epigastrium.

24th. Considerably better since the application of the leeches. No pain in the epigastrium. No vomiting. Bowels not open since the 22nd. Tongue coated. Pulse 80, small.

25th. Pain has returned, but no vomiting nor purging. His head aches considerably. Tongue is cleaner.

To have twenty leeches to the epigastrium.

26th. Pain diminished. No vomiting. Tongue white and moist. Bowels costive.

To take of the *Misturæ Magnesiæ Sulphatis* one fluid ounce immediately, and to repeat it if needful.

27th. No pain after eating food. No vomiting or sickness.

Head aches. Appetite good. Tongue cleaner. Bowels confined. Pulse 80, small and feeble.

29th. Feels considerably better. Pain in the head continues, and he has a burning sensation in his bowels. Tongue coated. Pulse 80.

30th. Has still some pain in his head, but none in his stomach.
To have twelve leeches to the epigastrium.

31st. Tongue cleaner. Bowels rather purged.

To omit the *Misturæ Magnesiae Sulphatis*.

1st November. Has some pain in his stomach. Tongue furred. Purging abated. Pulse small and feeble.

To have six leeches to the epigastrium.

2nd. Does not feel so well as before. Has more pain in the head and stomach. Sleeps very little and awakes frequently with startings.

3rd. Pain in the head and stomach as well as in the limbs. Tongue furred. Appetite bad. No vomiting or purging.

To have twelve leeches to the epigastrium.

4th. Has much less pain.

5th. Has still occasional pain in his stomach. Tongue much more natural.

To have six leeches to the epigastrium.

6th. Feels much better. No pain. No tenderness on pressure. Bowels open. Pulse stronger.

7th. Is free from head-ache this morning, but complains much of terrifying dreams, which prevent his sleeping.

℞ *Liquoris Morphinae Acetatis* m.vii.

Misturæ Camphoræ f̄ʒj. *Misce.*

Fiat haustus omni nocte sumendus.

8th. Is not yet free from pain, but it is not considerable. No vomiting. Bowels regular. Pulse strong. Tongue cleaner. Appetite improved.

11th. Discharged at his own request.

CASE XI.—Gastro-enteritis acuta; form Synochus; Common Fever.

4th June, 1833.

John Plant, unmarried, aged 18 years, and works in a cotton-factory; first felt ill eight weeks ago, when he thinks he caught cold by working on a damp floor. He found his appetite to fail; had pain and tenderness over the epigastrium; became very thirsty; and was much disturbed by horrifying dreams, which frequently made him start up in bed. He experienced pain in his back, shoulders, and arms, hips, thighs, knees, and the calves of his legs. He was very costive. These symptoms prevented him from following his work, and at the time of his admission they were very much aggravated.

To have eight leeches to his epigastrium.

To take castor-oil when required.

To lie in bed.

To have rice diet, biscuit, and barley-water.

7th. To have the leeches repeated.

8th. Pulse low and small.

To have one ounce of the best French brandy, diluted with cold water, daily.

11th. Skin hot and dry. Urine scanty and red. Conjunctiva injected. Tongue dry and rough in the center, moist at the edges. Thirst considerable. Pulse full and quick, 112. Lips parched. Throat dry, with a sense of constriction. He is quite free from pain. Has a short dry cough. Sleeps quietly, and takes his food pretty well.

12th. Tongue cleaner, moist, and less red. Pulse 104, soft. Throat dry. Lips not so much parched. No pain. Skin less hot and dry. Appetite bad. Bowels costive.

To have an injection of simple warm water immediately.

13th. Bowels were gently opened by the injection. Tongue moist, with red and white streaks. He is not so thirsty. Skin dry, but less hot. Pulse 100, full, and regular. Lips still parched. Cough troublesome. Throat dry, and feels sore.

14th. Cough very troublesome; prevents his sleeping. Tongue dry with streaks of red and white. Less thirst. Pulse slower. Skin still dry, but less hot. Appetite somewhat improved. Bowels costive.

15. Tongue moist and cleaner. Less thirst. Throat less dry. Cough better. Bowels costive.

To repeat the injection of warm water.

16th. Bowels have not been opened. Pulse low, rather irritable. Skin moist. No thirst. Tongue still streaked.

17th. Has had no evacuation from the bowels. Countenance presents rather a leaden hue. Lips blanched. Pulse small, weak, and irregular. Was delirious in the night. Does not complain of pain. There is considerable stupor. Much cough. Tongue somewhat drier.

To repeat the injection of warm water.

To have half an ounce of castor-oil, and to repeat it if necessary.

To increase the quantity of brandy to two ounces daily.

18th. Has had his bowels copiously moved by a single dose of castor-oil. Pulse still weak. Breathes hard and with some little difficulty. Appetite rather improved. Tongue white with less of red. Throat not dry. No thirst. No pain. Sleeps better.

℞ Ammoniæ Subcarbonatis gr.ijj. formâ pilulæ quartâ quâque horâ sumenda.

19th. Pulse 110, small, weak, and wiry. Cough better. Tongue whiter. Bowels not open since the 17th.

To repeat the injection of warm water.

9 P. M. *vesperè*. Bowels unmoved.

To repeat the injection.

11 P. M. No motion.

To have half an ounce of castor-oil.

20th. No evacuation from the bowels having taken place, the castor-oil was repeated this morning, at 5 o'clock. At 6 o'clock he passed a very scanty motion. Pulse small and weak. Tongue very red at the edges and tip. He was delirious in the night. Cough troublesome. Breathing short and quick. No thirst.

Heat of skin moderate. Bowels have been more copiously moved.

To have four ounces of pure wine daily.

To go on with his brandy.

21. No motion since yesterday. Pulse feeble, wiry, and irregular. Urine high-coloured. Countenance dull.

To have two grains of calomel in the form of pill every four hours.

To have the brandy increased to four ounces daily.

To continue the wine as before.

To have two ounces of the *Misturæ Cinchonæ* with each dose of the *Subcarbonate of Ammonia*.

To have strong beef-tea.

22nd. Pulse still feeble and tremulous. Tongue very rough, dry, and red. Much drowsiness, but answers promptly when spoken to. Countenance heavy. Does not complain of pain. Bowels still costive.

To have a common injection immediately.

4. P. M. Bowels have been well opened without the injection. Tongue moist and less red. Appears slightly delirious. Pulse still feeble. Complained of his feet being cold, but feels comfortable now, from the application of a bottle of hot water. Continues the beef-tea, of which he has taken a pint with apparent avidity. Drinks his wine and brandy with similar avidity.

23rd. Tongue very dry and rough in the centre, moist at the edges. Is delirious and drowsy. Pulse still fluttering, somewhat less feeble. Bowels not open since yesterday. Lips are parched. Skin dry. No thirst. Sighs occasionally. Urine high-coloured with rather a copious yellow sediment.

24th. Tongue more moist. Pulse fuller, less wiry. Bowels not moved since the 22nd. Still rambles a little, but is quite conscious. Takes all that is given without any uncommon effort.

To repeat the injection.

25th. Tongue moister, less red. Pulse very quick, but stronger. Does not ramble much. Bowels were slightly moved by the injection.

To repeat the injection.

26th. Bowels were opened by the injection, and he had also a motion in the night. Pulse quick and irregular, but somewhat stronger. Tongue moister. Gums rather sore.

27th. Tongue moist and much cleaner. Pulse stronger. Sleeps well. Appetite good

To repeat the common house-injection.

28th. Tongue much improved; papillæ very prominent. Pulse quick but stronger. Takes his food well. Bowels open.

29th. Pulse feeble and tremulous. Tongue as yesterday. Bowels not open.

30th. Bowels were opened by an injection. Mouth sore. Pulse small and feeble.

July 1st. Bowels opened by an injection.

3rd. Bowels opened by an injection. Appetite still good. Expresses a desire for some beef. Pulse thready and feeble. Has no pain.

To have some beef in addition to the other things.

4th. Pulse very feeble. Rambles much. Tongue clean. Appetite good; ate the beef heartily. Bowels not open.

6th. Much stupor. Tongue dry. Pulse feeble. Mouth affected by the mercury.

To omit the pills.

To have a wash of dilute acetic acid for the mouth.

9th. Takes his wine, brandy, beef and beef-tea; also his medicines.

10th. Continues much the same. Pulse no stronger.

To repeat the common house-injection.

12th. Mouth better. Pulse somewhat stronger. Skin moist. Heat natural. Tongue clean and moist. Appetite good. Sleeps well. Very little cough. Urine healthy. Bowels rather torpid. No pain or tenderness. Is much emaciated.

To repeat the common house-injection.

13th. Bowels were opened yesterday by the injection. Stupor rather increased. Pulse weaker.

To have half an ounce of castor-oil immediately.

14th. Bowels were freely opened by the oil. Takes very little meat, but continues to swallow the wine, brandy, and medicines. Pulse thready and more feeble. Sweats in the night. Has very little cough; hardly any expectoration. Face is very cadaverous. Appears to be sinking.

15th. Seems more lively this morning. Pulse rather stronger. Tongue perfectly clean. Bowels costive.

16th. Bowels not moved since Sunday, 14th. Has some tenderness over the lower part of the abdomen. Pulse 112, very weak.

17th. Bowels open twice this morning. Tongue still clean. Sweats considerably. Pulse 120, no stronger. Has taken no beef-tea to-day. Temper irritable. Seems more conscious, and takes more notice of things around him.

18th. Bowels torpid. Pulse some little stronger. Seems somewhat better.

19th. Appears more lively and collected. Bowels open yesterday. Tongue rather dry. Appetite better. Pulse 100, less thready. Very little cough. No pain.

20th. Tongue moister and perfectly clean. Pulse slower and fuller.

21st. Desires to have some cheese.

To have some cheese.

22nd. Ate the cheese yesterday with a relish. Desires it again. Perfectly collected.

To have the cheese daily.

To have the common purging injection.

23rd. Bowels have been opened by the injection. He seems some little better.

24th. There is an evident change for the better in his appearance this morning. His face is less pale, and his looks are more cheerful. Pulse quick, but rounder and stronger. Tongue clean and moist. Appetite good. Bowels open.

25th. Pulse 120, and regular. Tongue clean. Bowels confined.

26th. Bowels still confined. Pulse rather more feeble to-day.

Tongue clean and moist. Appetite continues good. Takes a fair quantity of meat, and eats with a good relish.

To repeat the injection.

27th, 28th, 29th, 30th. Not much change.

31st. Pulse 100, rather wiry. No pain. Some cough. Tongue clean. Appetite good. Bowels confined.

1st August. Ate a very hearty breakfast. Says he is better. Bowels still confined.

To repeat the injection.

2nd. Bowels open. Stools perfectly natural. Tongue quite clean. Appetite good. Pulse regular but weak. No pain. Very little cough.

4th. Feels better, and looks better. Pulse quick, but stronger. Cough better. Bowels open.

5th. Makes no complaint. Tongue clean. Bowels open. Skin hot. Pulse 120. Feels thirst. Appetite continues good.

7th. Is much the same. Pulse 120, feeble.

8th. Pulse 116. Tongue clean. Appetite continues good. Bowels open naturally. Very little cough. Sleeps well. No pain.

11th. Seems improving.

15th. Pulse 120, rather stronger. Expresses a desire for porter.

To have porter *ad libitum* up to a pint.

16th. Feels better. Porter agrees with him. He continues to take the wine and brandy. Bowels open.

19th. Is much better. Eats his food very heartily.

22nd. Continues to improve. Is able to sit up.

23rd. Sat up yesterday, and feels very well.

25th. Sat up yesterday, and feels stronger.

30th. Still improving. Gets up every day.

2nd September. Still convalescing slowly.

8th. Convalesces slowly. Sits up every day, and gains a little strength.

12th. Is still improving.

16th Discharged cured.

OBSERVATIONS.

The principal thing, gentlemen, to be remarked in this case is the very great quantity of stimulating articles both of food and medicine which the patient required and took, not only without injury, but even with advantage. I suppose that after the inflammatory state of the mucous membrane has been removed, the membrane is left in a state of depression, torpor, or atony, which not only admits but even requires the use of powerful stimulants. We sometimes find that patients who have led very sober lives, will take a bottle or two of wine, or even a pint of brandy daily, with advantage. This circumstance must arise from the torpor of the mucous membrane of the alimentary canal, or from the atony of the nervous system in general. There was great reason more than once to fear for this patient's life. But, by great attention, I am happy to say, he has completely recovered, and is gone home quite well. I do not think he could possibly have recovered out of the walls of this or some similar institution.

CASE XII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

2nd July, 1833.

Ann Lievesey, aged 37 years, weaver, married, resides in a cellar. Fourteen days ago was seized with shivering, succeeded by pain in the epigastrium shooting to the back, pain in the head, back, and limbs; heat of skin, thirst, and loss of appetite. Could not assign any cause for the attack.

To go to the House of Recovery.

2nd. When admitted complained of pain in the epigastrium on pressure, pain in the head, and giddiness. Pulse 100, sharp, not very full. Throat rather inflamed. Tongue white and slightly coated.

R Pulveris Ipecacuanhæ compositi gr.vi.
Hydrargyri cum Cretâ gr.iiij. Miscæ.
Fiat pulvis, manè et vesperè sumendus.

R Misturæ Ammoniaë Acetatis fʒviii.
Vini Ipecacuanhæ fʒij. Miscæ.
Sumatur fʒj. tertiâ quâque horâ.

To keep in bed, and to be allowed nothing but barley-water, and oatmeal-gruel.

3rd. manè. Vomited twice in the night. Slight pain in the back. No head-ache, but still has giddiness. Sleep disturbed by unpleasant dreams.

Omit the mixture. Continue the powders.

Apply six leeches to the epigastrium.

3rd. vesperè. No complaint of pain. Throat better. Thirst not so great. Skin moist. Pulse 96.

Pergat.

4th. manè. Slight pain of the epigastrium on pressure. Tenderness of the left hypochondriac region. Head painful, dizzy, and light. Nausea. Has vomited in the night. Much pain of thighs and legs. Throat improving. Tongue dry and glazed in the centre. Pulse 96.

Eight leeches to the epigastrium.

Omit the powders.

4th. vesperè. Head quite well. Pain in the thighs and legs quite gone. Less thirst. Tongue moist, not so red as in the morning. Bowels moved twice; stools liquid, very fetid.

5th. manè. Slept without any dreams. Head quite well. No thirst. Skin cool and moist. Pulse 90. Says she could eat some beef and bread.

To continue the barley-water and gruel.

To have also some rice-pudding.

5th. *vesperè*. Says she feels quite well.

12th. No unpleasant symptoms since the last report. Has continued to improve in strength and appetite.

18th. Has had no other diet than bread, milk, and rice-pudding.

Discharged quite well.

OBSERVATIONS.

This is an interesting case, and, as far as one instance goes, it confirms the views which I had the pleasure of presenting to you at our first meeting. The pain in the head, back, and limbs, was always accompanied with pain in the epigastrium; and all these pains were relieved, and finally removed by the application of leeches to the epigastrium. Notwithstanding the slenderness of her diet she continued to improve in strength up to the day when she was discharged quite well.

CASE XIII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

22nd July, 1833.

Thomas Dowd, a boy, 8 years of age, felt very sick on Friday last, the 19th instant, and vomited several times. He was also much purged. Had great head-ache. Appetite gone.

22nd. When admitted, had a slight head-ache. Much pain of the epigastrium on pressure. Skin hot and dry. Not much thirst. No appetite. Tongue furred and red at the edges. Has been purged frequently; stools brown and watery.

Four leeches to the epigastrium.

R. Pulveris Ipecacuanhæ compositi.

Hydrargyri cum Cretâ, āā gr.ij. Misc.

Fiat pulvis manè et vesperì sumendus.

To have rice and milk diet.

23rd. Head quite well. Epigastrium not so tender as before. Has been purged four times in the night. Tongue as yesterday. Not much thirst.

Four leeches more to the epigastrium.

Vesperì. Pain of the epigastrium not much better. Tongue furred and red. Short, troublesome cough.

℞ *Misturæ Ammoniacæ Acetatis* f̄ijss.

Vini Ipecacuanhæ.

Tincturæ Camphoræ compositæ, āā f̄iv. *Misce.*

Sumasur f̄ss. *tertiâ quâque horâ.*

24th. Has still slight pain in the epigastrium. Is frequently purged. Stools brown and fetid. No head-ache. Cough less troublesome. Thirst not so great. Tongue dry but less furred. Pulse 90.

25th. No pain of the epigastrium. Purged twice in the night. Very little cough. Tongue furred. Seems much better.

26th. No head-ache. No pain of the epigastrium. Sleeps well. Tongue furred and red. Appetite improves. Copious perspiration.

27th. No complaint of pain. Tongue clean, rather red. Bowels regular. No thirst.

28th. No pain. Sleeps well. Appetite good.

To omit all medicines.

29th. Quite well.

To sit up for a few hours, and to have common diet.

30th and 31st. Improves in strength.

1st August. Discharged, quite recovered.

OBSERVATIONS.

You will please to observe in this case, gentlemen, that the pain in the head which the patient complained of on his admission, was removed by leeches applied not to his temples but to his stomach, as there I have no doubt was the original

seat of disease. After the head-ache was removed we again applied leeches to the epigastrium, as it was probable that the purging with which he was affected arose from inflammation of the mucous membrane of the duodenum. You must have observed, or at least you have been told that inflammation or irritation of one extremity of any canal in the human body excites either inflammation, or irritation, or violent action, or, at any rate, increased action, at the other extremity. Thus, snuff taken by a person not accustomed to it excites a flow of tears; meat in the mouth, or even the fumes of tobacco taken into the mouth excites a flow of saliva; the child's mouth on the nipple excites the secretion of milk; in blenorrea the inflammation of the extremity of the urethra excites irritation of the mucous membrane of the bladder with frequent micturition; *vice versâ*, inflammation of the mucous membrane of the bladder, excites irritation of the external extremity of the urethra; the presence of worms in the intestines generally causes an intolerable itching of the nose; in ipso coitûs actu, irritatio glandis secretionem seminis atque expulsionem inducit; if you irritate the pharynx and fauces by placing the finger at the back of the mouth, you will produce vomiting; the act of vomiting itself will frequently bring on an immediate evacuation from the rectum. In like manner, inflammation or irritation of the mucous coat of the duodenum, at the extremity of the ductus communis choledochus will produce an increased

secretion of bile at the other extremity of the biliary tubes, and an increased expulsion of it into the intestines. Therefore in bilious diarrhoea, and in bilious cholera, I cannot at present say for the spasmodic cholera, we have reason to believe that there is always at the commencement inflammation or irritation of the mucous coat of the duodenum, and we should attack the disease by placing leeches over the right side of the epigastrium.

CASE XIV.—Gastro-enteritis acuta: form, Synochus; followed by Pleuritis, and Bronchitis.

2nd July, 1833.

Michael Cavan, married, aged 30, a labourer, fourteen days ago got very wet, after which he had rigors, great head-ache, and thirst, vomiting and purging.

2nd. When admitted he had delirium, tinnitus aurium, tenderness of eyes, pulse 90, small and tremulous, tongue white, coated, dry, and cracked in the centre, great thirst, slight tenderness of the epigastrium, pain in the back, pain and soreness in the limbs.

One grain of calomel and a quarter of a grain of opium in a pill, every eight hours.

℞ Ammoniae Subcarbonatis gr.xl.

Spiritûs Aetheris nitrici.

Spiritûs Lavandulae compositi, āā f̄ij.

Misturæ Camphoræ, f̄viiss. Miscæ.

Sumatur f̄ij. tertiâ quâque horâ.

3rd. manè. Slept well. No head-ache. Less tenderness of the epigastrium. Great thirst. Pulse 96. Was purged twice in the night.

Vesperè. No pain or tenderness of the epigastrium. Slight delirium and noise in the head. Pulse 104, a little stronger. Tongue dry and cracked in the centre, moist at the edges.

4th. *manè*. No pain. Slept well. Bowels moved three times, stools dark green. Tongue as before. Pulse 100. Slight cough.

Vesperè. Breathes quickly and complains of oppression in the chest. Has been flushed at intervals during the day.

A blister on the chest.

5th. *manè*. Was purged several times. Pulse 106, regular, but weaker. Tongue moister than before. Breathing as laborious as before. Cough troublesome.

Omit the mixture already prescribed.

℞ Ammoniae Subcarbonatis gr.xl.

Tincturæ Scillæ.

Spiritûs Aetheris nitrici, āā fʒiij.

Misturæ Camphoræ fʒviiss. Miscæ.

Sumatur fʒj. tertiâ quâque horâ.

Vesperè. The blistered cuticle has risen well. Breathing much relieved. Cough much less. No pain. Pulse as before. Purged twice during the day. Tongue continues dry and cracked in the centre. Appetite improving. Takes boiled milk and sago.

6th. *manè*. Slept well. No pain. Pulse 90, weak. Tongue moist. Skin cool. No delirium. No head-ache.

Vesperè. Slept during the day. No pain. Less thirst. Tongue moist. Appetite improves.

7th. Slept well. Not purged. Tongue dry in the centre. Cough frequent and troublesome.

To take of the Linctus Scillæ a teaspoonful occasionally.

8th. Cough troublesome, with a moist and muco-purulent expectoration.

A blister on the chest.

9th. Cough easier. Appetite improves.

11th. Cough frequent and troublesome. Complains of an acute pain in the side, increased by inspiration.

To have eight leeches to the painful side.

Vesperè. Pain in the side quite relieved. Cough easier.

Omit the mixture and pills.

12th. Pain in the side returned during the night. Cough short and dry.

To have eight leeches again to the side.

Vesperè. Pain in the side worse and more diffused. Breathing quick; inspiration difficult. Pulse fuller and stronger. Skin hot.

Venesection of the arm to sixteen ounces.

Pilula Antimonii composita, every six hours.

Pain relieved, but not quite removed, by the bleeding.

A blister over the painful part of the side.

13th. The blistered part has risen well. No pain in the side. Tongue clean and moist.

14th. Bowels not moved since the 12th. The mouth is affected with the pills.

Omit the pills.

To take half an ounce of castor-oil.

15th. No pain of the side. No cough. No thirst. Appetite good.

To have common diet, including flesh-meat.

16. Feels quite well. Sat up for three hours.

17th. Gains strength. Appearance much improved.

18th, 19th, 20th, 21st. Rapid improvement in strength and appetite.

22nd. Discharged, quite recovered.

OBSERVATIONS.

I feel very happy, gentlemen, that this patient has recovered; for, had he died, I should have blamed myself for not having ordered leeches to his epigastrium immediately upon his admission. The fact is that when a patient labours under great apparent debility, we have not always the moral courage to abstain from giving him some stimulant, leaving him in his debility, which will instantly disappear when the inflammation of the stomach and duodenum on which it depends is removed. Still less have we always the courage when the patient's pulse is small and tremulous, to place a number of leeches

upon the epigastrium; for, if the patient should die soon after the operation, there is always a sufficient number of ignorant bystanders ready to throw the blame upon the physician. Physicians are in general judged by the event, and not by the judicious conduct of the case.

In this case, gentlemen, I believe the original affection to have been, inflammation of the mucous membrane of the stomach and duodenum, forming gastro-enteritis. The principal symptoms of this were the great thirst, the vomiting, the purging, and the cough.

The mode in which the inflammation of the stomach may produce cough I have already explained to you; and I doubt not, if this man had been predisposed to phthisis, that the irritation of the lungs produced by the inflammation of the stomach, was sufficient to establish it. I have also explained to you how the inflammation of the mucous coat of the duodenum may produce diarrhea. The thirst is explained by the great heat of the stomach, and the vomiting by its increased irritability.

We have had success in the treatment of this case, but I am ready to admit that I think the success would have been more rapid and more decisive, if we had begun by placing a dozen leeches on the epigastrium. However, the great apparent debility of the patient prevented this.

The man came from a very small lodging-house in a dirty low confined street, and I have no doubt

his disease arose from contagion operating upon a system already much debilitated by exposure to wet and cold. If you ask me, how could the contagious matter produce inflammation of the stomach and duodenum, I answer, that it, in all probability, mixed with the saliva in his mouth and was swallowed; in the same manner as we know that the contagion of small pox, taken without inoculation, produces inflammation of the stomach, the usual premonitory symptom of small pox.

CASE XV.—Gastro-enteritis acuta: form, Synochus; Common Fever.

2nd July, 1833.

Bridget Church, aged 21, unmarried, works in a cotton-factory. Five days ago was seized with shivering, succeeded by heat of skin, pain in the head, great thirst, with pains of the limbs.

2nd July. When admitted she complained of pain of the epigastrium on pressure, head-ache, and pain of the limbs, sore throat, tongue red, dry, and glazed in the centre. Pulse 100, and small.

To have eight leeches to the epigastrium.

℞ Pulveris Ipecacuanha compositi gr.vi.

Hydrargyri cum Cretâ gr.ij. Misc.

Fiat pulvis noctu manèque sumendus.

To have for diet nothing but barley-water and oatmeal gruel.

3rd. *manè*. Throat less inflamed. Had two dark-coloured stools in the night.

Vesperè. Has no pain of the epigastrium. No head-ache. Throat better. Tongue red. Great thirst. Slight dyspnœa and cough. Pulse 110, feeble.

R. Linctûs Scillæ f̄ijjss.

Tincturæ Camphoræ compositæ f̄jss. Miscē.

To take a teaspoonful when the cough is troublesome.

4th. *manè*. Less cough, breathing much easier. Slept a little in the night. Head is painful and dizzy. Had some griping in the night. Epigastrium is tender on pressure. Pulse 110, feeble. Tongue clean, red, and glazed in the centre.

To have eight leeches to the epigastrium.

Vesperè. Says she feels much better. Head quite free from pain. Tongue dry and glazed in the centre. Thirst as great as before. Cough troublesome.

5th. *manè*. Slept in the night; was troubled with dreams. Pulse 115, feebler. Skin hot. Tongue as before. Thirst great. There is slight pain of the epigastrium on pressure. Bowels moved in the night. Stools not so dark, but fetid. Cough easier.

Vesperè. Has been purged three times. No pain, but great weakness. Great thirst. Tongue moist. Cough troublesome.

6th. Cough and breathing easier. Pulse 96, regular. Tongue glazed. Thirst great. Purged once in the night. No appetite.

7th. Purged several times in the night. Pulse very feeble. Great thirst. Tongue dry and red. Cough not so troublesome. Skin moist.

To have six leeches to the epigastrium.

8th. No pain on pressure of the epigastrium. Has had frequent delirium during the night. Pulse 110, regular. Great thirst. Tongue dry; papilla prominent. Purged three times, stools fetid.

To omit the powders.

9th. No head-ache. Tongue dry in the centre, moist at the edges. Appetite a little better.

To have rice diet and milk.

10th. No pain. Pulse 96, rather feeble.

11th. Head dizzy. No pain. Skin cool. Pulse 96, feeble.

To take six ounces of port-wine daily, along with the rice diet and milk.

12th. Pulse 78, feeble. Cough better. Tongue clean and furred in the centre. Seems drowsy and even lethargic.

Vesperè Slept much during the day. Very little appetite.

13th. Feels much better. Very little stupor. Tongue rather dry. Appetite better.

To have two drachms of castor-oil immediately.

14th. Bowels moved twice. Pulse firmer.

15th. No thirst. Tongue slightly furred. Appetite better. General appearance much improved.

To have only four ounces of port-wine daily.

16th. Tongue clean. Appetite good.

17th. Bowels not moved.

To have two drachms of castor-oil.

18th. Appetite and spirits good. Sleeps well. Complains only of weakness.

19th. Continues to have rice-diet and milk, with four ounces of port-wine a day.

23rd. Has had unpleasant dreams during the night. Complains of pains in the head. Tongue moist and clean.

Six leeches to the temples, and half an ounce of castor-oil.

24th. Sleep not disturbed by dreams. Bowels open. No thirst. Appetite good. Sat up a few hours.

To have common diet, including flesh-meat.

28th. General appearance much improved. Appetite good. Strength greater.

31st. Much stronger. Appetite very good. Sleep not disturbed by dreams.

7th August. Gradual improvement in her strength and appearance.

Discharged, quite recovered.

OBSERVATIONS.

This is a case which some short time ago would have been styled pure Synochus. It was, however, a case of acute gastro-enteritis, as was shown by the pain on pressure of the epigastrium, the head-ache, pain of limbs, and great thirst. She had also some

slight purging, and likewise a cough and dyspnœa. I have so frequently explained these symptoms, that, at present, I shall say nothing about them. They were removed by the application of twenty-two leeches at different times to the epigastrium, and of six leeches to the temples, with the most perfect attention to diet. The patient came from the same lodging-house as Michael Cavan, and on the same day; so that much of what I said on Michael Cavan's case, is applicable to the present case.

CASE XVI.—Gastro-enteritis acuta: form, Synochus; Common Fever.

2nd July, 1833.

Thomas Ingham, a lad, aged 16, works in a cotton-factory. He has been ill two weeks. He got very wet. Felt extremely cold and alternately hot. Great thirst. Tongue much loaded. Has a bad taste in his mouth. Bowels very costive. Is troubled with wind. Epigastrium sore on pressure. Pain in the back. He has terrifying dreams. Has a slight cough and some expectoration.

To have immediately twenty grains of calomel in the form of a bolus.

Misturæ Sennæ composita f̄ij. ter indies.

3rd. Bowels have been frequently moved. Tongue still loaded. Slept badly. Epigastrium still sore on pressure. Some pain in the limbs. Great thirst. Skin hot. Pulse 100 and full. Cough troublesome.

To omit the sennæ mixture.

To have twelve leeches to the epigastrium.

Common poultices afterwards.

To lie in bed, and take rice diet, biscuit, and barley-water.

4th. Slept better. Has been much purged. Tongue much loaded. Mouth clammy. Pulse quick. Belly less tender.

℞ Tincturæ Opii fʒss.

Misturæ Cretæ fʒvi. Misce.

Sumatur fʒjss quater quotidie.

5th. Bowels less relaxed. Less pain in the abdomen. Pulse slower. Cough troublesome.

6th. Purging diminished. Slept better. No pain on pressure of the epigastrium. Deafness has come on.

8th. Much sweating and thirst. No pain.

9th. Tongue cleaner but red at the tip. Pulse rapid and irregular. Some delirium.

11. Delirium increased. Skin hot and dry. Complains of great oppression at his chest. Pulse very rapid and weak.

To take half an ounce of castor-oil immediately.

12th. Oil opened his bowels. Tongue cleaner. Pulse less quick. Cough less troublesome. Breathing easier.

13th. Skin cool and moist. Bowels regular and natural. Less stupor and delirium. Has still tenderness over the lower portion of the abdomen.

To take two grains of calomel in a pill four times a day.

14th. Still delirious. Countenance anxious. Is much emaciated. Pulse thready and feeble. Tongue furred, red at the tip and edges. Bowels loose; motions natural.

15th. Abdomen less tender.

16th. Delirium less. Bowels open; stools natural. Pulse weak, but slower.

17th. He is more collected and seems better. Pulse 110.

18th. Tongue rather cleaner. Has still some pain on the abdomen on pressure. Is otherwise improved.

℞ Liquoris Morphine Acetatis m.v.

Misturæ Camphoræ fʒj. Misce.

Fiat haustus horâ somni sumendus.

19th. Slept well. Is still delirious.

20th. Pulse fuller.

21st. Is still delirious. Bowels open. Tongue cleaner. Pulse 90, pretty full. Appetite improved. Wanted beef and potatoes this morning.

26th. No delirium. No pain. Tongue clean. Appetite good. Bowels open. Pulse 100, but strong.

29th. Seems improving, but the countenance is still dull and anxious. Sweats much.

31st. Is sitting' up to-day, and feels better. Sleeps well. Tongue rather loaded and whitish. Appetite good. Bowels open. Pulse rather thready and quick.

1st August. Pulse 80, fuller. Tongue cleaner. Skin moist. No thirst.

To omit the poultices, and the chalk mixture.

2nd. Appears stronger. Pulse regular and full. Bowels natural. Appetite good. No pain.

3rd. Sleeps well.

4th. Is improving. Tongue nearly clean. Appetite good. Feels stronger. Pulse natural.

5th. Still improving.

To omit the pills which he has taken since the 13th July.

To have broth for dinner.

9th. Nearly quite well.

10th. To have *Misturæ Cinchonæ f̄j. quater indies.*

19th. Discharged quite recovered.

OBSERVATIONS.

The only thing very peculiar in this case, was the great length of time, twenty-three days, during which the patient continued to take eight grains of calomel daily. The fact is, the chalk mixture, which he took at the same time, robbed the calomel of its acid, and thereby rendered it much less active. This shows that chemical changes may take place in the sto-

mach, and should render us careful not to prescribe things, which, by combining in the stomach may form a too active compound.

CASE XVII.—Gastro-enteritis acuta: form Synochus; Common Fever.

21st August, 1833.

Alexander Maclean, a weaver, unmarried, aged 28 years, says he began to feel unwell ten days ago, when he experienced shiverings, with severe vomiting and purging.

When admitted the skin was cool, the pulse rather slow, the tongue moist but white; the bowels were regular; he had no thirst, and did not complain of pain. The eyes looked rather wild, but the pupil was natural.

To have five grains of mercurial pill immediately.

To have a blister to the back of the neck.

22nd. He has been very rough and noisy during the night. Had no sleep. Makes no complaint of pain. The eye is a little suffused. Bowels were moved once. Pulse 90.

Ten leeches to the temples, and ten to the epigastrium.

Two ounces of the *Misturæ Sennæ composita*, immediately.

A mercurial pill four times a day.

To have the head shaved.

Vesperè. Remains nearly as in the morning. Pulse has risen to 100.

23rd. Passed a very noisy and restless night. Tongue white but moist. Pulse 120. Bowels were purged several times in the night. The eyes are red. The pupils contract.

To have twelve leeches behind the ears.

To have the head kept cool by cold applications.

To have no diet except cold water.

Vesperè. The delirium and shouting have continued in paroxysms during the day. Has not been purged since morning.

Pulse 130, irritable and irregular. No complaint of pain. Eyes red. Has a wild look.

To have eight leeches to the temples.

To take two ounces of the *Misturæ Sennæ compositæ*.

24th. Passed a very rough night. Has had fits of shouting and excitement about every hour. Tongue is much furred and dry. No pain of abdomen on pressure. Bowels were freely open in the night. He says he feels no head-ache or noise in the head. The pupils contract freely. The eyes are red.

25th. Very restless. Much shouting and delirium. The eyes are not suffused. The pupils contract. He does not now answer questions or notice what is said to him. His breath is very fetid, probably from the mercury. Pulse 90, and regular, not full.

26th. Has not slept during the night. Shouts and sings frequently. Pulse as before. Tongue cleaner but dry. Has been purged freely in bed. The stools liquid, bilious, and more natural in colour.

27th. Was much quieter in the night, but did not sleep. Has constant delirium. Does not answer questions, but repeats whatever is said to him. Pulse 80, more feeble.

Vesperè. He has been much quieter during the day than before. Does not answer questions, but seems to understand what is said to him. Makes no complaint. Puts out his tongue when desired, which he would not do before.

28th. Not much purged in the night. Seems much more sensible. Pulse 95, very compressible.

29th. Pulse 115, irregular and irritable. Eyes dull and suffused. Does not notice what is said to him. Has been very restless in the night. Skin clammy. Profuse perspiration. Bowels loose.

To omit the mercurial pills.

To take, four times a day, the following draught.

℞ *Misturæ Ammoniacæ Acetatis* f̄ʒj.

Vini Ipecacuanhæ m. x. *Misce.*

To take oatmeal-gruel instead of cold water.

Vesperè. Pulse 130, small and irritable. Stupor, and clammy perspiration. Tongue dark brown, very dry.

30th. Pulse fluttering. Countenance much sunk. Twitchings of the limbs and grinding of the teeth. Eyes glazed, pupils contracted. Bowels loose.

To have sago with brandy, and twenty drops of laudanum.

To have wine also.

Meridiè. Dead.

Autopsy, twenty hours after death.

The head was first opened. The membranes of the brain were slightly congested. The brain itself was removed and carefully examined, but no morbid appearances could be observed in it, either as to its consistence, vascularity, or the quantity of fluid in its ventricles.

The abdomen was next examined. The liver presented a bluish black colour, and was soft. The mucous membrane of the stomach was softened, having a greenish colour, studded with patches of inflammation, of a vivid red colour. The duodenum near the pyloric orifice was highly inflamed, but no ulceration was found in it. The ileum had large patches of inflammation upon it for two-thirds of its length. At the ileo-cecal extremity were found two or three flattish, well-defined ulcers, the edges of which were not much elevated. The colon was inflamed throughout nearly the whole of its extent, but presented no appearance of ulceration. No other disease was found in the abdomen.

It was not considered necessary to examine the chest.

OBSERVATIONS.

This case, gentlemen, is worthy of your most profound meditation. It completely confirms all that I have told you of the dependence of the disease called synochus upon the existence of gastro-enteritis. Here was a man with decided *delirium ferox*, and suffused eyes, who declared he had no pain upon pressure of

the abdomen, and who yet, after death, presented no appearance of inflammation of the brain, but who had the most evident inflammation of the mucous membrane of the whole intestinal canal. If there were any mistake made in his treatment I must candidly admit it to be this: that we ought to have applied thirty leeches to his stomach, and no leeches to his head. But, if you will just consider, that the man was exhibiting every mark of inflammation of the brain, and none of inflammation of the stomach and intestines, you will probably excuse me for having applied only ten leeches to his epigastrium, and the rest of the leeches to his head. I assure you that, after the man was dead, I did not expect that the inspection of his body would so completely confirm the theory which I have laid before you on this subject. I rather suspected, and indeed I may say feared, that there would be much inflammation of the brain, and no inflammation of the stomach and intestines. So difficult is it to divest oneself entirely of the old theories of the schools. This case, however, has completely confirmed my conviction of the truth of the new doctrine, which claims Broussais for its father.

CASE XVIII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

26th August, 1833.

Ann Rostron, unmarried, a weaver, aged 20 years, began to feel ill a week ago, when she had shivering succeeded by heat of skin,

which alternated with each other for two days. She then had severe head-ache, pain in the back and limbs with great lassitude. She had great thirst, total loss of appetite, and bowels costive. She has a sister recovering from fever, with whom she slept.

On admission, she complains of severe head-ache, pain in the back and limbs, great thirst, sore throat, no appetite, bowels costive, tongue dry with a thick coat of brown fur upon it. She has no cough or pain in the breast, and no pain in the abdomen.

To take immediately sixteen grains of the Pulvis Hydrargyri Submuriatis cum Rheo.

To have for diet, oatmeal-gruel, barley-water, and milk.

27th. Bowels have not been moved by the powder. Head-ache and other symptoms as yesterday.

To take immediately one of the Pilulæ Colocynthidis cum Hydrargyro.

To take every four hours one fluid ounce of the Mistura Ammoniac Acetatis.

Vesperè. Slight evacuation from the bowels. Skin cooler. Less thirst

To take immediately half an ounce of castor-oil.

28th. Bowels freely purged. Slept well in the night. No head-ache, or pain in the back. Skin cooler. Tongue moister; still dry and furred in the centre.

Vesperè. Bowels moved three times during the day. Tongue moister, still coated. No pain in the head or back.

29th. Tongue as yesterday. Pulse 100, soft. Skin cool and moist. Throat rather sore. Bowels open.

30th. Tongue cleaner and moist. Throat well. No pain.

31st. Tongue moist, not much cleaner. No thirst. No head-ache. No pain.

1st September. No complaint made. Appetite better. Tongue as yesterday.

2nd. Bowels confined.

To take immediately one of the Pilulæ Colocynthidis cum Hydrargyro.

4th. Tongue cleaner. Bowels regular. No complaint made.

To sit up, and have rice-pudding for dinner.

5th. Tongue furred and dry. No pain or head-ache. Bowels costive.

To keep in bed again.

To have eight leeches to the epigastrium.

To take immediately half an ounce of castor-oil.

To omit the *Mistura Ammoniacæ Acetatis*.

7th. Bowels freely moved in the night. Some thirst. Skin cool. Tongue cleaner.

9th. Makes no complaint. Has very little thirst. Tongue coated with a brown fur. Bowels open, stools dark and fetid.

To take one mercurial pill every night.

10th. Says she feels quite well, though the tongue remains furred, and the appetite not very good. Less thirst. Pulse natural.

12th. Tongue nearly clean. Appetite improved. No thirst. Bowels regular.

14th. Tongue cleaner, but rather white. No thirst. Skin cool.

To be allowed to sit up for a few hours.

16th. Continues to improve.

To omit the mercurial pill.

To have common diet.

18th. Says she feels quite well; gains strength; tongue rather white.

25th. From the last report up to the 24th, she remained quite well; but on the 25th, when she should have left the house, she was seized with acute inflammation of the right leg. The inflammation extended from the ankle to the middle of the leg, which was much swelled, pitted on pressure, and was of a vivid red colour, particularly near the ankle. The tongue in the evening was furred in the centre, and red at the tip and edges. Bowels costive. Pulse quick and full.

To have twelve leeches to the leg.

A linseed poultice afterwards.

To take immediately two drachms of castor-oil.

To take every four hours one ounce of the *Mistura antimonalis*.

To keep in bed.

26th. Swelling and inflammation of the leg diminished. Pulse not so full. Tongue as yesterday. Bowels confined.

To have ten leeches to the leg.

To take immediately half an ounce of castor-oil.

27th. No pain in the leg. Inflammation nearly subsided. Bowels freely purged in the night. No thirst.

To omit the *Mistura antimonalis*.

28th. The leg seems quite well. Tongue cleaner, but still brown in the centre. Skin cool. Appetite better.

29th. Tongue cleaner. Bowels regular. Leg quite well.

To sit up and have common diet.

1st October. Leg continues quite well. No unpleasant symptoms.

4th. Continues quite well, and would have been discharged before this date, if she had had a comfortable home to return to.

6th. Discharged cured.

CASE XIX.—Gastro-enteritis acuta: form, Synochus; Common Fever.

26th August, 1833.

Alice Rostron, a girl, in the 12th year of her age, working in a cotton-factory, has been ill four days. She had slept in the same room with her sisters, who had the fever. She complained at first of head-ache, pain in the back and limbs, thirst, and loss of appetite.

On her admission she says she has slight head-ache, no pain in the back, appetite moderate. Her tongue is clean; skin rather hot.

Her diet is restricted to oatmeal-gruel and milk.

28th. Slight head-ache. Skin cool. No thirst. Bowels not open.

To take immediately two drachms of castor-oil.

29th. Bowels open. No thirst. Tongue clean. The head-ache not relieved.

To have four leeches to the temples.

30th. Head quite well. No complaint.

To have broth at noon.

1st September. Seems very weak. Appetite not very good. Does not complain of pain.

4th. Appears improving. Tongue clean. Does not gain strength.

6th. Appetite bad. Tongue moist, but a little furred. Bowels not open.

℞ Hydrargyri cum Cretâ gr.ij.

Pulveris Rhei cum Magnesiâ gr.iv. Misce.

Fiat pulvis bis quotidie sumendus.

8th. Very little improvement. Continues very feeble. Appetite variable. Tongue white. Not much thirst.

To have for diet, rice-pudding chiefly.

10th. Much improved. Gains strength. Tongue clean. No thirst. Appetite good. Sleeps well.

13th. Continues to improve, and gain strength. Bowels regular. Appetite good.

To omit the powders.

17th. Appears quite well.

To have common diet, milk, animal food, and pudding.

26th. Remained well up to this morning. In the evening she complained of head-ache and sickness, and vomited a quantity of undigested food with which she had overloaded her stomach.

To take eight grains of the Pulvis Hydrargyri Submuriatis cum Rheo.

To lie in bed and have rice diet.

27th. Bowels open in the night. Head-ache and sickness quite gone. Tongue clean. Says she feels quite well again.

28th. Remains quite well.

To sit up and have common diet again.

4th October. Continues quite well; and has regained her accustomed strength.

Discharged cured.

CASE XX.—Gastro-enteritis acuta: form, Synochus; Common Fever.

26th August, 1833.

Margaret Rostron, aged 17, a weaver, unmarried, has been ill a week. When the complaint began, she had several rigors, and hot fits, with pain in the head, back, and limbs, great thirst, and loss of appetite. Had slept in the same room with her sisters who had the fever.

On her admission she had severe head-ache, and pain in the back and limbs, no cough, or pain in the breast, tongue red at the tip and edges, covered in the centre with a thick white fur. Her throat was sore; she had much pain over the abdomen on pressure; and her bowels were confined.

To have eight leeches to the epigastrium.

Poultices afterwards.

R Misturæ Ammoniacæ Acetatis fʒviii.

Vini Ipecacuanhæ fʒij. Misce.

Sumatur fʒj. quartâ quâque horâ.

To have for diet barley-water, oatmeal-gruel, and tea.

27th. Head-ache nearly gone, but the pain in the back continues. Less pain of the abdomen. Tongue moister; continues red and coated. Bowels purged four times in the night. Thirst as great as before.

Vesperè. No head-ache. Throat better. Thirst less. Tongue as before. Still has some pain of the abdomen on pressure. Has vomited a little.

To have eight leeches to the epigastrium.

28th. Slept well. No head-ache. The pain in the back removed by the leeches. Very little pain in the abdomen. Tongue

clean but red. Throat quite well. Bowels moved several times in the night. Skin cooler. Slight cough.

Vesperè. Pulse quick. Had severe vomiting. Bowels purged frequently. Tongue very red and coated. Does not complain of pain.

To have eight leeches to the abdomen.

To omit the mixture.

29th. No head-ache or pain in the back. Slept well. Skin cool. Tongue dry and coated. Throat better. Bowels moved six times in the night.

Vesperè. Skin cool. No pain of the abdomen on pressure. Had a little vomiting. Tongue furred and red.

To take eight grains of the *Pulvis Ipecacuanhæ compositus* immediately.

30th. Slept well. No pain of the head, back, or abdomen. Skin cool. Tongue cleaner but very red. Bowels not moved in the night.

Vesperè. She has felt sick and vomited a little. Skin cool. Pulse full, soft, and quick. No pain in the abdomen. Tongue not so red. Bowels not moved.

To repeat the *Pulvis Ipecacuanhæ compositus*.

31st. No pain. Skin cool. Tongue furred and dry, red at the tip and edges. Bowels not moved.

To take immediately two drachms of castor-oil.

1st September. Bowels freely purged. Tongue not so red, but covered with a thick fur. Pulse wiry, and quick. Skin cooler. Cheeks frequently flushed.

2nd. Less thirst. Tongue coated but moister. Bowels freely purged. Stools fetid. No pain.

3rd. Pulse feeble and irritable. Tongue dry and glazed. No pain in the abdomen. Frequent purging in the night. Sleep much disturbed by unpleasant dreams.

To take eight grains of the *Pulvis Ipecacuanhæ compositus*.

To have poultices to her stomach.

4th. Tongue cleaner but rather dry, red at the tip and edges. No pain. Bowels loose. Stools of various colours, very fetid.

To have eight leeches to the epigastrium.

5th. Pulse wiry. Skin cool. Sleep disturbed. Tongue cleaner and moist.

6th. Pulse and skin as before. Tongue moist. Very little appetite.

To take eight grains of the Pulvis Ipecacuanhæ compositus every night.

7th. Skin hot and dry. More thirst. Tongue clean but dry in the centre. Bowels not moved since yesterday.

8th. Sleep much disturbed by dreams; shouts and talks in her sleep. Cheeks alternately pale and flushed. Does not complain of pain. No pain of the abdomen on pressure. Skin moist. Pulse soft and compressible. Tongue moist. Bowels moved freely in the night; stools liquid, brown, and fetid.

10th. Slept little during the night in consequence of a short dry cough. Tongue moist and furred. Breathing short and hurried.

To have a blister-plaster on the chest.

To have a hot foot-bath in the evening.

11th. Breathing relieved. Cough easier. Tongue dry. Pulse quick and irritable.

To omit the Pulvis Ipecacuanhæ compositus.

12th. Has had much cough in the night. Tongue moist but not cleaner. Bowels loose. Pulse feeble and quick.

To have another blister-plaster on the chest.

To have four ounces of port-wine daily.

13th. Tongue dry. Pulse quick and irritable. Bowels confined.

To take immediately twelve grains of the Pulvis Hydrargyri Submuriatis cum Rheo.

To take a quarter of a grain of the Acetate of Morphine in a pill every night.

To take one fluid ounce of the Mistura Acidi sulphurici three times a day.

To repeat the poultices which have been for some days omitted.

14th. Tongue moist, red, and furred. Bowels open twice. Pulse stronger. Slight pain of the abdomen on pressure.

15th. Has slept better during the night. Tongue dry. Pulse soft, not so frequent.

16th. Appears drowsy. Much stupor. Pulse frequent and irritable. Tongue moist at the edges, dry in the centre, very red. Bowels loose; stools liquid, brown, and fetid.

To omit the pill of Acetate of Morphine.

To take one grain of calomel and a quarter of a grain of opium, in a pill, twice a day.

17th. Very little sleep during the night. Stools more natural in colour and consistence. Tongue clean, but still red and rather dry. Much less cough. Pulse quick, but soft and regular.

18th. Slept better. No pain. Tongue cleaner, moist, and not red. Less cough. Pulse as before. Appetite improving.

19th. Appears much better. Tongue cleaner and moist. Appetite better. Bowels regular. Sleeps well.

20th. Continues to improve. Tongue moist and nearly clean. Bowels regular.

21st. Same as yesterday.

To omit the calomel and opium.

To have animal food and bread for dinner.

22nd. Tongue clean. Appetite good. Makes no complaint.

24th. To sit up, and to omit the poultices which she has continued up to this time.

26th. Gradual improvement. Appetite continues good.

28th and 30th. Ordered to lie in bed in consequence of a bile on the abdomen, which suppurated and was opened on the 30th. General health not impaired by it.

8th October. Has rapidly gained strength. Appetite good. Bowels regular.

18th. Continues perfectly well.

Discharged cured.

CASE XXI.—Gastro-enteritis acuta: form, Synochus; Common Fever.

26th August, 1833.

Mary Rostron, a girl in the 15th year of her age, working in a cotton-factory, has been ill a week. She had slept in the same room with her sisters. She says she felt unwell for some days previous to leaving her work, which she did about a week ago, on account of head-ache, and pain in the back and limbs.

When admitted she complained of severe head-ache, but had very little pain in the back and limbs. The skin was hot and dry; the throat sore; the tongue red and much furred. She had great thirst, and her bowels were confined.

To take immediately twelve grains of the Pulvis Hydrargyri Submuriatis cum Rheo.

To have for diet, oatmeal-gruel, milk, and barley-water.

27th. Bowels not yet opened.

To take half an ounce of castor-oil immediately.

Vesperè. Bowels have been freely purged. Skin is cooler. No head-ache. Less thirst. Tongue moist, red, and coated.

28th. Slept well. Skin cool. Slight thirst. Tongue cleaner and moist. Bowels freely open. No pain of head or abdomen.

Vesperè. Skin hot. Slight head-ache. Tongue white.

To have two drachms of castor-oil immediately.

29th. Bowels moved several times. Skin cool and moist. Tongue rather white. No thirst.

30th. Feels quite well.

To have broth at dinner-time.

1st September. Much stronger. Appetite good.

To have rice-pudding as well as broth.

3rd. Makes no complaint.

4th. Discharged cured. She went home to Hadfield-street, a street which is knee-deep in mud, and returned on the 18th September, relapsed.

18th September, 1833.

Says that two days ago, she had much pain in the head, vomited, and was much purged.

When admitted she had delirium and stupor, but would answer questions when roused. She complained of slight head-ache, intolerance of light; the tongue was dry and parched; the skin hot; the pulse 120, feeble.

To have one grain of calomel and a quarter of a grain of opium, in a pill, twice a day.

To have a blister-plaster to the nape of the neck.

To have poultices to the abdomen.

To have for diet oatmeal-gruel and milk.

19th. Stupor continues. Does not complain of pain in the head. Is more sensible when roused. The skin cool and clammy. Pulse quick and feeble. Tongue moister and covered with an aphthous crust. Teeth covered with sordes.

20th. Less stupor. Much tenderness of the eyes. Tongue moist and less coated. No pain of the abdomen. Bowels open; stools natural.

To continue the poultices and the pills.

21st. Very little stupor. No head-ache. Bowels open twice; stools natural. No pain of abdomen. Tongue as yesterday.

22nd. More stupor and head-ache. Tongue moist at the edges. Short cough. Pulse rapid and feeble.

23rd. Stupor continues. Much tenderness of the eyes, when pressed upon. Tongue moist, rather white. Pulse quick and small. Breathing short and laborious. Cough more troublesome.

To have a blister-plaster to the chest.

To continue the calomel, but omit the opium.

24th. Less stupor. No head-ache. Tongue moist. Breathing quick. Much cough. No tenderness of the abdomen. Pulse quick and wiry.

25th. Less cough. Breathing natural. Sleeps much, but is tranquil. Skin hot. Pulse quick.

26th. Pulse firmer and less irritable. Skin cool. Tongue clean and moist. Bowels open.

To omit the pills.

27th. Much improved. Tongue clean. Appetite better. Bowels regular. Pulse fuller.

29th. Complains this morning of head-ache. Skin hot. Tongue more furred. Feels sick and disposed to vomit. Bowels confined.

To have two drachms of castor-oil, and to repeat it in four hours if necessary.

30th. Bowels purged three times from the oil. Head-ache and nausea gone. Pulse quick but firmer. Skin cooler. No thirst.

3rd October. Much improved. Tongue cleaner and moist. Appetite good. Bowels regular. Skin cool.

To sit up for a short time.

4th. Appearance is much improved. Appetite good. Tongue nearly clean.

To have animal food.

5th. Seems much stronger. Tongue clean. Appetite good. Sits up for three or four hours every day.

9th. Gains strength rapidly. Looks much better.

14th. General health good. Feels stronger. Can walk much better.

18th. Continues as at last report. We do not send her home on account of the bad state of the street in which she lives.

1st November, 1833.

Continued to improve gradually up to this time, when she complained of sore-throat and head-ache. Skin is hot and dry. Tongue very much furred. Fauces are considerably swelled, so as to impede deglutition.

To have eight leeches to the throat.

To take immediately twelve grains of the Pulvis Hydrargyri Submuriatis cum Rheo.

To have oatmeal-gruel only for diet.

2nd. Bowels moved only once. Throat very little better, but there is less swelling of the fauces.

To repeat the leeches to the throat.

To take an ounce of the *Mistura Sennæ composita* every hour until the bowels are opened.

3rd. Bowels freely open during the night. Throat much easier, but swelled. Tongue white and coated.

5th. More pain in the throat. Tongue much coated. Great thirst. Skin hot. Bowels confined.

To take an ounce of the *Mistura Sennæ composita* every hour until the bowels are opened.

6th. Feels much better. No thirst. Tongue cleaner. Throat not painful.

8th. Much better. Appetite returning. Swelling of the throat nearly gone. Tongue cleaner, but rather white.

10th. Feels quite well. Appetite good. Tongue clean.

To sit up, and have rice diet.

12th. Gains strength and continues to improve.

18th. Much stronger. Appetite very good.

24th. Can walk perfectly well. Has nearly regained her accustomed strength.

26th. Is quite well.

CASE XXII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

27th August, 1833.

Hannah Hall, unmarried, aged 20, works in a cotton-factory. When she first became ill, fourteen days ago, she felt much pain in the head and back, with aching of the limbs. She felt very sick, but did not vomit. Had great thirst; no pain in the belly; was troubled with frightful dreams; has had much purging since the beginning of her illness.

On the day she was admitted she had not as much purging as usual. She was very thirsty. Had slight head-ache and severe pain in the back. Tongue furred and dry. Very little pain of abdomen on pressure.

To have twelve leeches to the epigastrium.

To have poultices afterwards.

R Tinctura Opii fʒj.

Misturæ Cretæ fʒvi. Miscæ.

Sumatur fʒj. quater quotidie.

To have for diet milk and oatmeal-gruel

28th. Slept very little during the night. Bowels not purged. Tongue moister, but continues coated. Is rather thirsty. No head-ache or pain in the back.

To omit the chalk-mixture with laudanum.

Vesperè. Bowels not moved since the 27th.

To take two drachms of castor-oil immediately.

29th. Bowels open from the oil. Slept well. No pain. Tongue white and furred.

30th. Feels much better. Pulse 100. Tongue cleaner. No pain of abdomen on pressure.

31st. Tongue much cleaner. No pain. Appetite good. No thirst.

2nd September. Quite well. Tongue clean and moist. Appetite good. Bowels regular.

To have meat diet.

3rd. Remains quite well.

4th. Discharged cured.

CASE XXIII.—Gastro-enteritis acuta : form, Synochus ; Common Fever.

23d September, 1833.

John Westerman, a boy aged 13 years, and working in a cotton-factory, has been ill ten days. He was first attacked with vomiting and purging ; had no head-ache or pain in the back, but a good deal of pain in the abdomen.

When admitted he had pain of the epigastrium on pressure ; the tongue was red and coated ; pulse quick and strong ; skin hot and dry ; bowels confined.

To have eight leeches to the epigastrium.

To take one fluid ounce of the *Mistura Ammoniacæ Acetatis* every four hours.

To have for diet oatmeal-gruel, milk, &c.

24th. No pain of the epigastrium. Bowels not open. No head-ache. Tongue moist but white.

To take half an ounce of castor-oil immediately.

25th. Bowels freely open; stools brown and fetid. Tongue cleaner and moist. No head-ache, or pain of the epigastrium.

27th. Tongue clean and moist. No thirst. Appetite improved. Bowels regular.

29th. Tongue white and furred. Bowels confined.

To take two drachms of castor-oil immediately.

30th. Bowels open twice. Tongue still white and furred. Appetite improving.

To have rice diet.

1st October. No change.

3rd. Tongue moist and cleaner. Bowels open twice. No pain.

4th. Has had much pain and griping during the night, which were relieved after the bowels had been twice purged. The stools consisted of much undigested matter.

To have the belly well fomented with flannel and hot water.

To take six grains of the *Pulvis Hydrargyri Submuriatis cum Rheo* immediately.

5th. Tongue moist and rather white. Bowels open three times; stools more natural. No pain or griping.

To repeat the powder.

6th. Tongue clean and moist. Appetite good. Makes no complaint.

To sit up.

7th. Is not so well. Was unable to sit up long, and felt very sick. Tongue white. Bowels confined.

To repeat the powder.

To continue in bed.

8th. Feels much better. No thirst. Tongue cleaner. Appetite improves. No pain of abdomen.

To have broth allowed him.

10th. Had some griping in the night, which ceased after the bowels had been open twice. Tongue rather white, but moist.

11th. Has had no more griping. Bowels moved in the night; stools natural. Tongue nearly clean. Appetite improved.

12th. Some thirst. Tongue nearly clean. Appetite variable.

14th. Much better. Tongue clean. No thirst.

To sit up again.

16th. Seems better. Feels stronger. No thirst. Appetite good.

20th. Gains very little strength. Appetite not so good during the last two days.

22nd. Appetite improved. Tongue clean. Bowels regular. Seems much stronger.

25th. Continues as at last report.

2nd November. Cured.

CASE XXIV.—Gastro-enteritis acuta: form, Synochus; Common Fever.

25th September, 1833.

Susan Hall, unmarried, aged 19 years, works in a cotton-factory, has been ill eight days. She began by feeling cold, and had severe rigors, followed by head-ache and pain in the back, with great heat of the skin.

When admitted she had violent pain in the head and back. Skin was hot. Pulse full. Tongue much furred. Bitter taste in the mouth. Great thirst. No appetite. Bowels costive. No pain of the abdomen on pressure.

R Pilularum Hydrargyri.

Extracti Colocynthis compositi, āā f̄ss. Misce.

Divide in pilulas xij.

Sumantur ij. statim, atque omni nocte.

To have oatmeal-gruel for diet.

26th. No relief to the symptoms. Bowels not yet open.

To have half an ounce of castor-oil immediately.

Vesperè. Bowels open twice. Head much better. Pulse full. Skin hot.

To repeat the castor-oil.

27th. Bowels freely purged in the night. Tongue cleaner, furred in the centre. Much thirst. No appetite. Head painful across the temples.

To have eight leeches to the epigastrium, and poultices afterwards.

28th. Feels much better. No head-ache. Skin cool. Pulse natural. Tongue moist and much cleaner. Very little thirst. Bowels opened once.

To omit the pills.

30th. Tongue moist and cleaner. Skin cool. No thirst. Bowels not open.

To take half an ounce of castor-oil immediately.

1st October. Bowels freely moved. Feels quite well.

2nd. Tongue clean. Appetite good.

To sit up and to have rice diet.

4th. Remains well.

To have ordinary diet.

6th. Gains strength. Appetite very good. Tongue clean.

7th. Discharged cured.

OBSERVATIONS.

Gentlemen, in this case I think it necessary to call your attention to the fact of the benefit which the patient received from the application of leeches to the epigastrium, on the 27th, although she complained of no pain upon pressure of the abdomen, and complained merely of pain of the head across the temples. The next day the report was, "Feels

much better ; no head-ache ; skin cool ; pulse natural ; tongue moist and much cleaner ; very little thirst ; bowels opened once."

CASE XXV.—Gastro-enteritis acuta : form, Synochus ; Common Fever.

2nd September, 1833.

Ann Shepherd, unmarried, aged 17 years, a domestic servant, has been ill fourteen days. Says she first had pain in the head and back, felt very sick, but had no vomiting. Bowels were much purged, and she had much griping.

When admitted, she had no head-ache or pain in the back ; the skin was cool ; she had not much thirst ; the tongue was furred and white ; she had no unpleasant dreams, or pain of the limbs, but had slight pain of the abdomen on pressure.

To have twelve leeches to the belly.

Poultices afterwards.

To take one ounce of the *Mistura Cretæ* four times a day.

To have for diet water-gruel and milk.

3rd. No pain. Slept well. Tongue as before. Bowels not open.

To omit the *Mistura Cretæ*.

Vesperè. Bowels moved once. No thirst. Tongue cleaner. No pain of abdomen. Feels very hungry.

4th. Feels better. Tongue cleaner. Appetite good. No thirst.

To take half an ounce of castor-oil immediately.

5th. Makes no complaint. Appetite good. No pain or thirst.

6th. Has a little head-ache. Bowels costive. Tongue rather furred. No thirst.

To have eight leeches to the epigastrium.

To have half an ounce of castor-oil immediately.

7th. Bowels purged twice. No pain of the abdomen on

pressure. Some head-ache, chiefly across the temples. Tongue moist, nearly clean.

To have eight leeches to the temples.

To have half an ounce of castor-oil immediately.

8th. Pain in the head remains as before. Tongue white. Very little appetite. Bowels open, stools natural.

9th. Head as before. Tongue white; papillæ elevated. Bowels open.

To have eight leeches to the epigastrium.

To take a mercurial pill every night.

10th. Pain in the head quite relieved since the leeches of yesterday. Tongue clean. Bowels open.

12th. Continues to improve. Tongue clean. Appetite good.

To sit up; and have ordinary diet, milk, animal food, &c.

15th. Appears quite well.

To omit the mercurial pill.

18th. Discharged cured.

OBSERVATIONS.

The only circumstance in this case, gentlemen, to which I think it necessary to call your attention, is, that on the 7th eight leeches were applied to the temples of the patient, with the view of relieving her head-ache, which object they failed to accomplish; but, on the 9th, the same object was completely accomplished by the application of the same number of leeches to the epigastrium.

CASE XXVI.—Gastro-enteritis acuta: form, Synochus; Common Fever.

18th September, 1833.

Robert Taylor, a boy, aged 9 years, works in a rope-walk, has been ill for a week. He complained of shivering and cold, head-ache, pain in the back and limbs, much purging, but no sickness.

When admitted he had head-ache and much stupor, great tenderness of the right side of the abdomen; the tongue was furred, dark brown, and rather dry. The teeth were incrustated with sordes; the bowels were purged; the pulse was quick and small.

To have six leeches to his abdomen.

To have poultices afterwards.

To take half an ounce of the *Mistura Cretæ* every three hours.

To have for diet, rice, oatmeal-gruel, and milk.

19th. Much less stupor. No head-ache. Tongue brown and coated as before, but moister. Pulse fuller. Less pain of the abdomen. Skin cooler. Bowels not moved in the night.

To omit the mixture.

R Hydrargyri cum Cretâ gr.iiij.

Pulveris Rhei cum Magnesiâ gr.iv. Misce.

Fiat pulvis bis in die sumendus.

20th. Bowels have been freely moved; motions loose. Still complains of pain of the abdomen on pressure. Tongue dry and coated. Skin hot.

To have six leeches to the abdomen.

To continue the poultices.

21st. Seems stupid, and is irritable when spoken to. Has a dry, frequent, short cough. Pulse quick and small. Tongue brown and coated. Great thirst. Very little pain of the abdomen on pressure.

To have the *Linctus Scillæ* for his cough.

22nd. Tongue cleaner. No pain of abdomen. Bowels purged twice. Pulse quick.

24th. No head-ache or pain of the abdomen. Tongue moist and white at the sides, dry and red in the centre. Bowels purged twice.

26th. Bowels purged twice in the night. Tongue moist and white. Very little thirst or appetite. Skin cool. Less cough.

27th. Complains of pain in the left groin, which is hot and rather swelled. He got a kick upon it some weeks ago.

To have four leeches to the groin.

A poultice afterwards.

30th. Tongue moister and cleaner. No pain of abdomen. Stools natural. The groin is more painful.

To omit the poultices to the abdomen.

To have four leeches to the groin.

Poultices afterwards.

1st October. Groin much easier. Less cough. Appetite variable. Tongue dry in the centre, white and moist at the edges. Bowels open once.

3rd. Complains of pain in the left thigh and knee extending along the leg. No swelling or increased heat of the limb. Bowels purged twice; stools more natural.

To have the leg, knee, and thigh fomented with hot water.

4th. The tongue is cleaner, but continues dry in the centre. No pain of the abdomen on pressure. Bowels purged three times; stools brown, and appear to consist of undigested matters. The leg is easier, though still very tender.

5th. The leg is much less painful. No swelling remains and very little increased heat. Tongue is moister. Bowels purged twice.

To omit the powders.

7th. Tongue moist and much cleaner. Appetite improved.

To have broth in addition to his diet.

9th. Has complained of much griping pain in the night. Tongue dry and rather furred. Bowels not open.

To have six grains of the Pulvis Hydrargyri Submuriatis cum Rheo, every night.

10th. Bowels freely purged; stools clay-coloured. No griping or pain of the abdomen. Tongue moist and white.

11th. Tongue moist and cleaner. Appetite better. Bowels open twice; stools more natural.

13th. Bowels regular; stools natural. Appetite good.

15th. He sat up to-day. Tongue moist, and nearly clean. Makes no complaint of pain in the leg or groin. Appetite good.

To omit the powders.

17th. Seems stronger. Appetite good. Tongue clean. Bowels regular.

18th. Continues well.

Discharged cured.

CASE XXVII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

20th September, 1833.

Ann Coffey, a waistcoat-maker, married, aged 36 years, says she has been ill two weeks. Does not remember to have had any shiverings. Had slight pain in the head and back, and aching of the limbs, with great languor, or, as she expresses it, "she felt quite done." Had great thirst, *frequent vomiting, and almost constant purging*, which have nearly ceased.

She *now* complains of great thirst, head-ache, and pain in the limbs, tenderness of the abdomen on pressure, tongue clean and red, and dry in the centre.

To have eight leeches to the epigastrium.

To have poultices afterwards.

To have oatmeal-gruel and tea for diet.

21st. Has a troublesome short cough. Pulse quick and small. Tongue dry in the centre. Much less pain in the epigastrium. Bowels not open since her admission.

To have half an ounce of castor-oil immediately.

22nd. Bowels freely moved. Tongue moist. Very little pain of the abdomen. No head-ache.

23rd. Tongue clean, dry in the centre. Some pain of the epigastrium on pressure. Slight head-ache. Very unpleasant dreams during sleep.

To have eight leeches to the epigastrium.

24th. Feels quite well. No head-ache, or pain of the abdomen. Tongue moist and rather white. Bowels freely open.

25th. Tongue clean and moist. Bowels open. Appetite moderate.

27th. Tongue moist, but rather white. Appetite variable. No thirst. Bowels loose.

To take six grains of the Pulvis Rhei cum Magnesia, twice a day.

28th. No pain. Feels better. Bowels not disturbed since yesterday.

29th. Slept well. Tongue moist and white. Bowels open.

1st October. Tongue as before. Appetite better. No thirst.

To sit up during the day, and to have rice diet.

3rd. Appears stronger. Tongue rather white. Appetite moderate.

To take an ounce of the Mistura Magnesiæ Sulphatis three times a day.

4th. Appetite better. Tongue as before. Bowels regular.

5th. Feels quite well and strong. Tongue quite clean. Bowels open.

6th. Discharged cured.

OBSERVATIONS.

It will not be necessary to make many observations on this case. You will remark the very small quantity of medicine which the patient took. In fact she was cured by leeches, poultices, diet, and confinement to bed. You will observe the very great relief which she derived from the application of leeches to her stomach. On the 23rd the report was, "Some pain of the epigastrium on pressure. Slight head-ache. Very unpleasant dreams during sleep." We immediately applied eight leeches to the region of the stomach. The next day the report was, "Feels quite well. No head-ache or pain of the abdomen." You will also observe the connexion of the head-ache with the pain in the epigastrium. On the 23rd they both

existed. Means were employed to remove the pain of the epigastrium, and immediately the head-ache ceased.

CASE XXVIII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

18th September, 1833.

William Batty, aged 17, unmarried, works in a cotton-factory, has been ill six days. Says he felt ill after bathing, when he was very chilly, and had pain in the head and back.

Complains of severe pain in the abdomen, has been much purged, but is not so now. Has great thirst. Tongue is red at the tip and edges, white in the centre; the papillæ are much elevated. Has no head-ache or pain in the back. Has much aching of the limbs.

To have eight leeches to the epigastrium.

Poultices to the abdomen afterwards.

For diet water-gruel and milk.

19th. Tongue as yesterday. Less pain of epigastrium and abdomen. Bowels not open. Skin cool and moist. Pulse quiet and slow. Mucous membrane of the nose dry and inflamed as from cold.

To have half an ounce of castor-oil immediately.

Poultices as before.

20th. Tongue dry and red; papillæ elevated. Pulse regular. Skin cool. No pain of abdomen.

21st. Bowels freely purged. Tongue clean and moist. Pulse and skin as before. No head-ache or pain of abdomen.

22nd. Seems quite well. Appetite good. Tongue clean and moist.

To omit the poultices.

23rd. To sit up and have the ordinary diet.

24th. Remains quite well.

26th. Continues well and quite stout.

Discharged cured.

CASE XXIX.—Gastro-enteritis acuta: form, Synochus; Common Fever.

18th September, 1833.

Richard Campbell, a lad, aged 16, a tobacco-cutter, became ill a week ago, when he had shivering, head-ache, pain in the back and limbs, loss of appetite, great thirst, &c.

He complains now of head-ache, and aching of the limbs. The skin is hot. The pulse 90, small, but regular. The tongue is red, clean, and glazed. He has much tenderness of the epigastrium on pressure. His bowels are confined.

To have eight leeches to the epigastrium.

To have poultices afterwards constantly.

To have half an ounce of castor-oil immediately.

To take one ounce of the *Mistura Ammoniacæ Acetatis* every four hours.

To have for diet water-gruel.

19th. Bowels open by the oil. Stools brownish and fetid. Much less pain of the epigastrium. Tongue clean, but red and glazed. Skin hot. Pulse small, but not so quick. No head-ache. Some degree of stupor.

20th. Tongue continues morbidly clean and red; papillæ elevated. Pulse regular. Skin cool and moist.

21st. Tongue cleaner, moist, and not much glazed. No head-ache. Pulse as before. Stools of a greenish colour.

To take four grains of mercurial pill every night.

22nd. Tongue clean, slightly red. No pain of head or abdomen.

To omit the *Mistura Ammoniacæ Acetatis*.

To have rice diet.

23rd. Tongue clean and moist. Feels quite well.

To sit up.

25th. Much stronger than before. Appetite good. No complaint.

To omit the mercurial pill.

27th. Remains quite well.

To have common diet.

30th. Discharged cured.

OBSERVATIONS.

In this case, gentlemen, you find a complete epitome of the doctrine of fever, and also a short compend of its treatment.

The essential cause of simple continued fever is inflammation of the mucous membrane of the stomach and of the small intestines, that is to say, it is gastro-enteritis. Its symptoms are tenderness of the epigastrium, or pit of the stomach, on pressure; confined bowels; head-ache, pain in the back, and aching of the limbs; loss of strength; shivering followed by great heat of the skin; pulse quick and weak; tongue with some redness upon it, generally dry; great thirst; loss of appetite; sleeplessness; restlessness or jactitation; a suffused redness of the eyes; delirium.

Now, sometimes there is no perceptible tenderness of the epigastrium on pressure, no pain of the belly even when the mucous membrane is ulcerated. Sometimes the bowels are exceedingly loose. Sometimes there is no head-ache; and but little pain in the back or aching of the limbs. Loss of strength there always is. The tongue varies very much; and, in fact, you cannot imagine any possible state of the tongue, except the perfectly healthy state, which is not occasionally observed. Sometimes there is not much thirst. Loss of appetite there always is. Sometimes, instead of sleeplessness there is complete and continued stupor. Occasionally the eyes have no preternatural redness; and, now and then, there is no perceptible delirium.

With regard to the treatment, you see it completely in this case. Leeches to the pit of the stomach to overcome the inflammation, poultices afterwards in order to determine to the surface, low diet for the purpose of preventing irritation, the *mistura ammoniæ acetatis* for the sake of overcoming the excessive heat of the system, by means of perspiration; and the mercurial pill in order to improve the secretion from the liver.

You will excuse this repetition of the doctrine and treatment of fever, as in clinical lectures a repetition of this kind is not only admissible but frequently indispensable.

CASE XXX.—Gastro-enteritis acuta: form, Synochus; Common Fever.

11th October, 1833.

Sarah Neild, a girl, in the 11th year of her age, a domestic servant, was admitted with febrile symptoms. She says she began to feel unwell a week ago. She had severe rigors, head-ache, pain in the back, vomiting, and great thirst.

She now complains of tenderness of the epigastrium on pressure, severe head-ache, the eyes rather red, skin hot and dry, great thirst, tongue red at the tip and edges, dry in the centre, and much coated. Bowels open once yesterday after taking some purging medicine.

To have six leeches to the epigastrium.

To take twelve grains of the *Pulvis Hydrargyri Submuriatis cum Rheo* immediately.

To have for diet oatmeal-gruel and milk.

12th. Head much easier. No pain in the back. Less thirst. Skin hot. Tongue as yesterday. Bowels open twice. Stools dark and fetid.

To repeat the powder.

Vesperè. Bowels not open since morning.

To repeat the powder.

13th. Bowels freely open in the night. Tongue cleaner. No head-ache. Very little thirst.

14th. Makes no complaint of pain. Tongue clean. No thirst. Appetite much better.

To have broth and rice.

15th. Continues quite well. Tongue clean. Appetite good. Bowels open.

16th. To sit up and have common diet.

18th. Is quite well. No debility.

24th. Discharged cured.

CASE XXXI.—Gastro-enteritis acuta: form, Synochus; Common Fever.

19th October, 1833.

Nathaniel Twindle, unmarried, in the 18th year of his age, works in a cotton-factory, says he has felt ill for three weeks. He thinks he took cold, but does not remember any cause for it. He had much pain in the belly, vomited much and had severe purging. He had also much pain in the head and back, great thirst, loss of appetite, and much oppression and difficulty of breathing.

When admitted he complained of pain in the abdomen, a sense of uneasiness and much pain upon pressure. Bowels have not been opened for two days. He feels very thirsty. Tongue dry and furred in the centre, moist and white at the edges. Skin hot and dry. Breathing quicker than natural. Has not much cough.

To have ten leeches to the epigastrium.

Poultices afterwards.

R Misturæ Magnesiæ Sulphatis f̄ʒiv.

Tincturæ Opii f̄ʒss. Misc.

Sumatur f̄ʒj. quater in die.

To have for diet oatmeal-gruel and rice.

20th. Much less pain of the abdomen upon pressure. Tongue moist, but much furred. Thirst less urgent. No pain in the head. Bowels opened six times: has less straining when he goes to stool.

21st. Tongue appears rather cleaner and moist. Bowels open. Pulse 100. Breathing quick and hurried. Complains of a sense of tightness across the upper part of the breast. Says he has had much cough in the night, and it is also very troublesome this morning.

To have ten leeches to the chest immediately.

To take a teaspoonful of the Linctus Scillæ whenever the cough is troublesome.

22nd. Breathing much easier. No pain or constriction of the chest remains. Tickling cough continues; much mucus expectorated. Skin hot and dry. Tongue as before. Bowels open three times.

To have a blister-plaster to the chest.

23rd. Has had much cough in the night, but very little this morning; expectoration free and easy. Bowels open four times. Tongue furred and dry in the centre. Poultices have been omitted.

24th. Very little cough. No pain or uneasiness in the chest. Tongue and bowels as yesterday.

25th. Complains of much uneasiness in the bowels; has much pain on pressure. Tongue dry in the centre and furred. Cough troublesome in the night. Skin hot and dry. Pulse quick. Bowels open several times.

To have six leeches to the belly.

To have common poultices afterwards.

To omit the Mistura Magnesiæ Sulphatis.

26th. Less tenderness of the abdomen. Bowels opened freely. Less cough in the night. Skin cooler. Pulse quick and feeble.

To have the hot bath immediately.

To take every four hours one ounce of the Mistura Ammoniacæ Acetatis.

27th. Pulse quick and feeble. Breathing short and hurried.

Not so much cough as the night before. Tongue moist but furred. Bowels open three times.

28th. Slept well. No head-ache. Cough very troublesome; expectoration consists of frothy mucus. Breathing continues soft. Pulse not so quick; softer. Tongue moist and rather cleaner. No pain of abdomen. Bowels not open since yesterday.

To omit the *Mistura Ammoniacæ Acetatis*.

29th. Much cough in the night. Breathing not so quick and short as before. Mucous rattle audible over the chest. Skin hot. Pulse as before. Tongue moist but furred. Bowels open.

30th. Has coughed much in the night. Expectoration free, consisting chiefly of mucus. Pulse quiet and soft. Tongue moist and less furred. Bowels freely open.

31st. Pulse quiet and soft. Skin cool and moist. Slept well. Cough less troublesome; expectoration free and easy. Tongue clean and moist. Bowels regular.

1st November. Cough rather troublesome; expectoration free and copious. Skin cool. Pulse as before. Tongue rather white and furred in the centre.

2nd. Cough less frequent. Breathing hurried and rather laborious. Tongue clean and moist. Skin cool. Pulse quiet.

4th. Slept better. The cough and respiration less troublesome. Tongue clean and moist. Skin cool. Pulse natural.

To omit the *Linctus Scillæ*.

To sit up for a short time.

To have common diet.

6th. Feels very thirsty. Skin hot. Pulse quick and small.

To lie in bed, and return to rice diet and gruel.

7th. Cough more troublesome. Breathing short and rather difficult. Skin hot. Pulse quick and very small.

To take one drachm of the *Linctus Scillæ* when the cough is troublesome.

9th. Seems better. Tongue clean and moist. No thirst. Skin cool. Pulse small but not so quick. Cough troublesome. Breathing short.

11th. Says he feels quite well.

13th. Is much stronger.

15th. Complains of griping pains in the abdomen. Had frequent purging in the night. Tongue nearly clean. Not much thirst.

R Misturæ Cretæ f̄3vi.

Tincturæ Opii f̄3j. Miscæ.

Sumatur f̄3jss. quater quotidie.

16th. Feels quite easy. Tongue clean. No thirst. Bowels open twice without tenesmus.

18th. Continues better.

To omit the chalk mixture.

20th. Complains of griping. Bowels purged frequently in the night. Tongue clean. No thirst.

To repeat the chalk mixture occasionally.

22nd. Says he feels quite well. No cough. Appetite good. Bowels regular. Tongue cleaner.

To omit the Linctus and the chalk mixture.

26th. Remains quite well.

28th. Discharged cured.

OBSERVATIONS.

If you examine and consider this case, you will find the most evident proofs of gastro-enteritis; and, as to the cough, it was, I apprehend, purely symptomatic of the gastro-enteritis, in the manner which I have before endeavoured to explain.

CASE XXXII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

6th November, 1833.

Margaret Lee, aged 44, a married woman, and attends her family, has been ill ten days. She had shivering and cold fits for the first day or two of her illness. She vomited several times. Bowels were costive.

When admitted, the skin was hot, the pulse 109, tongue furred. She had not much pain of the abdomen upon pressure. She has slight delirium at intervals. Complains of a short dry cough. Respiration is short. A sense of tightness of the upper part of the chest.

To have six leeches to the upper part of the chest.

To take immediately one *Pilula Colocynthidis cum Hydrargyro*.

℞ *Misturæ Ammoniæ Acetatis* f̄viiss,

Vini Ipecacuanhæ,

Vini Antimonii Tartarizati, āā f̄ʒj. *Misce.*

Sumatur f̄ʒj. *tertiâ quâque horâ.*

To have oatmeal-gruel and rice for diet, and as much cold water as she wishes.

7th. Very much purged in the night; stools very dark. Pain and constriction of the chest almost gone. Very little head-ache. Has vomited frequently in the night after taking the mixture. Pulse 120, and small. Rigidity of the muscles of the forearms and legs.

To omit the mixture.

To have a common poultice on the belly.

8th. Bowels not open since yesterday morning. Tongue moist, but white and coated. Much thirst. Has had a short, frequent, and troublesome cough all the morning.

To have a blister-plaster to the chest.

℞ *Tincturæ Opii* m.xl.

Misturæ Acaciæ compositæ f̄viii. *Misce.*

Sumatur f̄ʒj. *quartâ quâque horâ.*

9th. Seems better. Does not complain of any pain. Cough is less troublesome. Pulse is stronger and firmer. Bowels open once. Tongue white and coated.

12th. Tongue dry in the centre; coated with white fur. Bowels not open. Very little pain of abdomen. Cough frequent and troublesome. Skin cool. Pulse 115.

To take half an ounce of castor-oil immediately.

13th. Seems better. Tongue moist and cleaner but red. No head-ache. Cough easier. Has some pain in the epigastrium.

To have six leeches to the epigastrium.

14th. Bowels not open.

To take half an ounce of castor-oil immediately.

16th. Has slept well. Tongue moist and nearly clean. Bowels open. No thirst. Pulse small. Skin cool. Cough short, frequent, and troublesome.

18th. Seems much improved. Tongue cleaner and moist. No pain. Appetite returning.

20th. Tongue cleaner. Bowels not open. No pain. Much less cough. Appetite improved.

To have four ounces of red wine daily.

21st. Has slept well. Tongue clean and moist. Skin cool. Pulse 96, small. Cough rather more troublesome.

To have a blister-plaster to her chest.

22nd. Has had rather more cough in the night. Tongue clean and moist. Skin cool. Bowels not open.

To take half an ounce of castor-oil.

23rd. Cough continues very troublesome. Skin cool. Pulse small and feeble. Bowels not open. Tongue moist and clean.

To take half an ounce of castor-oil.

24th. Bowels freely open. Skin cool. Pulse feeble. Tongue clean.

To omit the mixture, but continue the wine.

25th. Tongue moist. Appetite improved. Skin cool.

To have common diet.

27th. Continues to improve. Very little cough. Skin cool. Pulse natural.

To be allowed to sit up.

1st December. Is much stronger. Appetite good. Cough quite well.

3rd. Continues quite well, and is stronger.

12th. Discharged quite cured.

OBSERVATIONS.

I have only to remark here, gentlemen, the continuance of a dry cough through the whole of the primary disease, and the perfect cessation of the cough when the primary disease had ceased. In fact, the existence of the cough depended on the existence of the gastro-enteritis. But, some of you may ask, why did I apply leeches and blisters to the chest, and why did I order a cough-bottle? I answer, principally to satisfy the theories of the patient and of the by-standers. For, what patient who has got a cough would be satisfied without a cough-bottle? And it is always right to satisfy the wishes of patients if we can do so without impropriety.

CASE XXXIII.—Gastro-enteritis acuta: form, Synochus; Common Fever.

6th November, 1833.

James Lee, aged 17, weaver, unmarried, has been ill six days. Says he had been previously quite well, when he felt rigors, and hot fits succeeding them, with severe pain and throbbing in the head, pain in the back and loins, aching of the limbs, and loss of appetite. He vomited twice, and his bowels were very costive.

When admitted, he had severe head-ache, and pain in the back. Much thirst. No appetite. Bowels very much confined.

To have twenty grains of the Pulvis Hydrargyri Submuriatis cum Jalapâ.

To have oatmeal-gruel and rice for diet.

7th. Bowels not moved.

To repeat the powder.

Vesperè. Bowels moved twice. Head-ache severe. More pain of the abdomen on pressure. Tongue furred but moist. Much thirst.

To have twelve leeches to the epigastrium.

R Misturæ Ammoniacæ Acetatis,
Misturæ antimonialis, āā f̄ij. Misce.
Sumatur f̄j. quartâ quâque horâ.

8th. Pain of the abdomen much relieved. Head-ache continues as before. Skin hot. Pulse continues full. Tongue furred and dry in the centre.

To repeat the powder.

R Liquoris Morphinae Acetatis m.vii.
Aquaë Cassiaë f̄j. Misce.
Fiat haustus horâ somni sumendus.

Vesperè. Abdomen more painful. Tongue dry and red. Much thirst.

To have twelve leeches to the epigastrium.

Common poultices afterwards.

9th. Very little head-ache. Slight pain in the back and abdomen. No pain of abdomen on pressure. Bowels open. Tongue dry in the centre. Skin hot. Pulse 88, rather fuller.

Vesperè. Pain of the abdomen has returned. Tongue dry.

To have eight leeches to the epigastrium.

10th. Abdomen rather easier. Thirst as great as before. Tongue moist, but furred in the centre. Head less painful. Pulse not so full.

11th. Very little pain. Tongue dry in the centre, moist at the edges. Great thirst. Bowels open several times.

12th. Pulse quiet, nearly natural. Skin cool. No head-ache. Slight cough. Bowels freely open. Tongue cleaner and moist. Thirst continues.

To omit the mixture.

13th. Pulse as before. Skin dry and hot. No head-ache. Tongue nearly clean but dry. Much thirst. Bowels much purged, and has some tenesmus.

℞ Tincturæ Opii fʒj.

Misturæ Cretæ fʒvi. Misce.

Sumatur fʒj. post singulas sedes liquidas.

14th. Bowels not purged during the night. Less thirst. No pain. Tongue moist and cleaner. Has had a short troublesome cough during the night.

To omit the chalk mixture.

℞ Tincturæ Opii fʒj.

Misturæ Acaciæ cum Scillâ fʒxij. Misce.

Sumatur fʒj. quartâ quâque horâ.

16th. Slept well. No head-ache. Cough frequent and very troublesome. Tongue moist, but furred in the centre.

To have a blister-plaster to the chest.

18th. Bowels not open. Head giddy. Pulse 104, strong. Cough frequent. Expectoration free and copious.

To have three drachms of castor-oil.

To have the Infusum Lini compositum, as much as he likes.

20th. Tongue moister. Less thirst and dryness of the mouth. Pulse natural.

23rd. Much cough during the night. No pain in the breast. Breathing easy. Pulse 90. Tongue dry in the centre. Bowels not open.

To have half an ounce of castor-oil immediately.

25th. Has had much more of the cough during the night. Breathing quick. Skin hot and dry. Pulse 110. Complains of shooting pains in the breast.

To omit the Acacia mixture.

To have a blister-plaster on the chest.

℞ Vini Ipecacuanhæ fʒij.

Misturæ Ammoniæ Acetatis fʒviii. Misce.

Sumatur fʒj. tertiâ quâque horâ.

26th. Breathing and cough much relieved. Skin cooler. Tongue dry and a little furred in the centre. Pulse quick and feeble.

To have four ounces of red wine daily.

29th. Much improved. Sleeps well. Has little cough. Appetite improved.

To have roasted apples agreeably to his desire.

1st December. Has coughed much in the night. Tongue clean and moist. Skin cool. Bowels freely opened by some castor-oil which he had last night.

To omit the mixture.

3rd. Cough nearly gone; very easy. Tongue clean. Appetite good.

To have broth.

6th. Cough quite well. Appetite good. Gains strength.

To sit up, and have common diet.

10th. Continues to improve. Gains strength rapidly. Has had no return of the cough.

21st. Discharged quite well.

CASE XXXIV.—Gastro-enteritis acuta: form, Synochus; Common Fever.

6th November, 1833.

George Lee, a boy, 5 years old, has been ill eight days. He first complained of much head-ache, appeared fretful and uneasy, vomited once or twice, and his bowels were confined.

When admitted, the tongue was red and clean; had head-ache and pain of the abdomen on pressure; very little thirst.

To have eight grains of the Pulvis Hydrargyri Submuriatis cum Rheo immediately.

To have rice diet.

7th. Bowels open once; stools quite clay-coloured. Has not much head-ache.

To repeat the powder.

8th. Bowels slightly open two or three times. Appears rather dull and listless. Tongue moist, red, and furred in the centre.

To repeat the powder.

9th. Seems better. Tongue clean, but red. Bowels slightly open, and a *lumbricus* six inches long discharged.

To take twice a day four grains of the Hydrargyrum cum Cretâ.

10th. *Vesperè*. Bowels not open.

To omit the Hydrargyrum cum Cretâ.

To repeat the Pulvis Hydrargyri Submuriatis cum Rheo.

11th. Bowels open twice. Stools more natural. Seems more cheerful and contented.

13th. Seems better. Tongue clean. Appetite better.

15th. Seems quite well. Appetite variable.

18th. Remains as before. Tongue rather red, but clean and moist. Bowels not open.

To take two drachms of castor-oil immediately.

20th. Looks better. Makes no complaint. Appetite better.

29th. Continues quite well, and would return home, but there is no one there to take care of him, his mother and sister being both in the house.

3rd December. An eruption of a vesicular character appeared on the arms, neck, and chest this morning. Tongue clean. Bowels costive.

To take two drachms of castor-oil immediately.

4th. The eruption appears more vivid on the chest and body: the vesicles are full of a clear fluid. Bowels not open.

To repeat the castor-oil.

To take twice a day three grains of the Hydrargyrum cum Cretâ.

6th. Eruption fading. Bowels open. Tongue clean. Appetite good.

8th. Eruption much in the same state as before; re-appearing in some places whilst it fades in others. General health good.

To have the warm bath every night.

12th. Much improved. Eruption disappearing.

To sit up.

21st. Discharged cured.

CASE XXXV.—Gastro-enteritis acuta: form, Synochus; Common Fever.

21st November, 1833.

Ann Lee, a nurse-girl, aged 9 years, has been ill six days. She began to feel ill with sickness and vomiting, head-ache and pain in the back, after feeling very cold and chilly. Bowels were costive; but has had some medicine given to her which purged her freely.

When admitted the skin was hot and dry, and the pulse quick. She had pain in the head and back. Tongue was clean but glazed in the centre. Felt thirsty.

To have common poultices to the epigastrium.

To have oatmeal-gruel, milk, and rice diet.

22nd. Remains nearly as she was last night when admitted. Bowels have not been open. Tongue and skin as before.

To take two drachms of castor-oil immediately.

To take half an ounce of the *Mistura Ammoniaë Acetatis* every third hour.

23rd. Bowels freely open in the night. Feels better. Pain in the head and in the back quite gone. Tongue whitish and dry in the centre. No pain of the abdomen on pressure. Skin cooler. Pulse 106.

24th. Bowels not open.

To take eight grains of the *Pulvis Hydrargyri Submuriatis cum Rheo*.

25th. Bowels freely open. Tongue moist and clean. No pain. Skin cool. No thirst. Appetite returning.

To omit the mixture.

26th. Says she feels quite well.

To sit up a little in the afternoon.

28th. Continues quite well.

To have common diet.

12th December. Discharged quite cured.

CASE XXXVI.—Gastro-enteritis chronica, with Peritonitis chronica, and Hepatisation of one of the lungs.

24th June, 1833.

Ann Armstrong, a stay-maker, unmarried, aged 24 years, says it is six months since she first felt pain in the shoulders, at the back of the neck, and in one of her legs and ankles. These pains she says were increased when she was warm in bed. Her bowels were very costive. Her appetite was bad, and her nights were restless. Had at this time a small lump on her back, which was very tender to pressure. Had medical advice and the lump was cauterised; but she feels herself growing worse.

She at present offers the following symptoms:—Pulse quick and feeble. Countenance dull and of a leaden hue; with the appearance of one under the influence of mercury. She has a coppery taste in her mouth. Throat is sore, presents an inflamed appearance, with slight ulcerations. She has pain between the shoulders, at the back of the head, and in the bones of her left leg and ankle. These pains are worse when she is warm in bed. She is much troubled with flatus. Belly is swelled and very sore when pressed. The pain and swelling of the abdomen much increased after eating. Bowels are costive. Feels occasional shooting pains between the shoulders and in her side. Cannot lie on the right side. Has a slight cough. On the sternum there is a small lump, which is very tender, and sometimes gives her pain. Has not had the catamenia for ten months.

A pint of compound decoction of sarsaparilla daily.

A gargle of corrosive sublimate to be used frequently.

The hot bath every night.

Rice diet, biscuit, and barley-water.

To lie in bed.

25th.—Slept very badly. Had much griping pain in the bowels with occasional shooting pains between the shoulders and at the back of the neck. Felt much relieved by the bath, which induced copious perspiration. Has no appetite. Bowels are open. Tongue is clean. Pulse quick and feeble. Has been very much troubled

with wind. Belly still swelled, but less painful on pressure. Throat gives her no uneasiness. She can swallow without pain. The neck is stiff. The tumour on the breast very sore. Has a slight cough. Pain between the shoulders increased on inspiration. Thinks herself better this morning.

26th. Bad taste in the mouth. Appetite not so good. Tongue clean. Throat less inflamed; ulcers disappearing. Bowels open. Slept very well. Had some griping pains in her bowels, but feels better. Belly less swelled, and not so tender. Still feels the pain between the shoulders, but very little in her leg, only when very warm. Complains much of wind,—and occasional stitches when inspiring. Coughs a little. Pulse small and quick.

27th. Felt very faint and sick, with a disposition to vomit, after the bath. Perspired copiously all night. Has less pain in the bowels. Swelling and tenderness of the belly diminished. Back still painful. No appetite. Pulse quick and feeble. Bowels costive. Feels thirsty. Voids less water. Throat better.

To take half an ounce of castor-oil.

28th. Feels better. Bowels open. Belly less swelled and painful. Throat improved.

29th. Much griping and tenesmus in the night. Throat continues better. Does not complain of so much pain. Lump on the breast rather sore.

To have common poultices constantly applied to the abdomen.

30th. Felt relieved by the poultices. Does not now complain of pain or tenesmus. Pulse stronger. Tongue cleaner. Slept better. Throat nearly well.

1st July. Does not feel any pain in the abdomen. Thinks the poultices have removed it. Feels rather sick this morning. Tongue pretty clean. Pulse feeble. Bowels open. No appetite. Wind troubles her much. Some slight pain in the elbow and shoulders.

2nd. Was very sick and faint after coming from the bath. Had much pain in the side and shoulders; but feels better this morning. Belly still swelled, tense, and painful. Bowels open. Throat quite well. Pulse very feeble and small.

To omit the hot bath.

3rd. Had some acute flying pains in the side and shoulders during the night. Feels better this morning. Tongue clean. Appetite improved. Belly not so swelled; feels tense, but is less tender. Pulse stronger.

4th. Feels much better. Tongue cleaner. Appetite good. No pains. Throat well.

5th. Had some stitches in the night, but feels better this morning. Appetite improved. Pulse stronger. No pain in the throat, head, or limbs. Less soreness and swelling of the belly.

6th. Had the castor-oil repeated yesterday. Bowels are open. She is much improved. No pain in the night. Tongue clean. Pulse still feeble.

7th. Passed a good night, but feels sick this morning. Bowels costive.

8th. Still feels sick and faint. Has had much pain in the belly. Wind troublesome. Belly still much swelled. Bowels costive.

To take half an ounce of castor-oil.

9th. Bowels open. Feels much better. Slept well. No pain except a little in the belly. Belly is rather less swelled, more flaccid. Urine scanty.

To have four leeches to the belly.

10th. No pain since the leeches. Feels better. Bowels costive.

To take half an ounce of castor-oil.

11th. Bowels were opened by the oil. Vomited last night, but feels better this morning.

12th. Tongue clean. Appetite bad. No sickness. Bowels torpid. Wind troublesome. Belly still swelled and tense, but not tender. Pulse stronger. Sweats in the night. No cough. Urine scanty. Has still pains in the shoulders and arms.

13th. Has a tumour in her left arm which she says is rather painful. Pulse small. Tongue clean. Still feels sick. Belly less swelled. Bowels costive.

To have six leeches to the tumour in her arm.

14th. Tumour is better. Has some pain in the back, very little in the abdomen. Bowels still torpid.

To omit the compound decoction of sarsaparilla.

To take of the *Mistura Magnesiæ Sulphatis* one fluid ounce four times a day.

15th. Feels better. Had no pain in the night. Bowels open. No sickness. Has still no appetite, but says she feels stronger.

16th. Had very little pain in the night. Bowels open. No diminution of the abdominal tumour.

17th. Slept well. Feels no pain. Swelling considerably less to-day. Bowels open. Feels stronger.

18th. Is rather improved. Was much troubled with a cough during the night.

19th. Complains this morning of sickness and head-ache. Coughed much in the night, which prevented her sleeping. Still feels pain in the neck and shoulders. Tumour in the arm again painful. Elbow stiff and sore. Pulse low and feeble.

To omit the *Mistura Magnesiæ Sulphatis*.

℞ *Infusi Calumbæ cum Potassâ* f̄ʒvss.

Tincturæ aromaticæ f̄ʒiv. *Misce.*

Sumatur f̄ʒjss. quater quotidie.

20th. Still feels pains in the neck and shoulders. Tumour in the arm painful. Bowels rather costive. Swelling not diminished. Has no appetite.

To take a mercurial pill every night.

21st. Vomited much in the night. Had no pain. Feels better this morning, but is still sick. Has slight head-ache. Bowels open. Tongue clean. Pulse quick and feeble. Left ankle swelled and painful.

To have four leeches to the left ankle.

22nd. Ankle better since the leeches were applied. Bowels costive.

To take two drachms of castor-oil immediately.

23rd. Bowels were opened by the oil. Felt sick and vomited in the night. Tongue rather furred. Pulse quick, but less feeble.

Has some pain in the loins extending down the thighs. Swelling undiminished. Gums and mouth sore.

To take the mercurial pill every second night.

24th. Complains of pain in the right side, increased on inspiration. Slight cough. Pulse 110, small. Skin hot. Feels thirsty. Tumour of the belly not diminished; it is always larger after drinking. Bowels open. Wind troublesome. Tongue clean.

To have a blister on the side affected.

25th. Was much troubled with strangury in the morning, but felt relieved by taking diluents. Pain on inspiration is completely gone. Bowels open. Swelling less.

26th. Bowels costive. Swelling increased. Voids her urine freely, but it is still scanty. Tongue is furred. Appetite not any better. Gums sore. Pulse 120, feeble. No pain.

27th. Is rather better. Very weak. Appetite continues bad.

28th. Feels very sick. Has had much vomiting and shivering. Tongue dry and whitish. Mouth sore. Much thirst. No pains. Is very weak.

29th. Pulse very feeble and quick. Skin clammy. Tongue a little furred and red. Incessant vomiting. Pain in the side. Cough dry and urgent. Bowels open.

To omit the pills and the mixture.

To have six leeches to the side immediately.

To have a grain of opium in the form of pill immediately.

To have the *Haustus Potassæ Citratis* every three hours.

Vesperè. Vomiting continues. Pulse sinking.

To have two ounces of French brandy diluted with a proper quantity of water.

The brandy did not agree with her. Vomiting remains incessant. Milk and water seems most likely to stay on her stomach.

30th. Had a restless night.

9 A.M. Vomiting has not ceased. Still complains of pain in the side. Pulse quick and feeble.

To have a blister applied to the side immediately.

To omit the brandy.

To take of the *Mistura Aetheris cum Opio*, a fluid ounce every three hours.

2 P. M. Vomiting continues.

To have a mustard poultice applied to the epigastrium.

To repeat the opium-pill, if necessary.

6 P. M. Vomiting not so frequent. Pain less. Cough troublesome. Much sweating.

31st. Passed a bad night. Vomiting continues. Has less pain in the stomach since the application of a mustard-poultice. Pulse extremely quick and tremulous. Tongue furred. Cough urgent. Pain in the chest. Sweats much. Takes the effervescing mixture, but nothing remains on her stomach.

To repeat the opium-pill at bed-time.

1st August. Passed a better night. Still feels sick, but does not vomit. Tongue cleaner. Pulse still quick. Skin hot and dry. Not much thirst. Dry cough still urgent. Feels better.

To have half a grain of opium in a pill, four times a day.

To have arrow-root or sago with wine, and to drink milk and water, or barley-water, whichever agrees best with her.

2nd. The tumour in the arm and on the breast have completely disappeared. Slept rather better. Cough still troublesome, but moist. Expectoration healthy. Pulse less quick. Vomiting has ceased. Very little pain. Feels better.

Let her have as much as eight ounces of wine daily.

3rd. Feels better. No vomiting. Thirst as great as before. Tongue furred. Pulse rapid and feeble. Cough troublesome.

4th. Passed a very bad night. Coughed incessantly. Breathing is very difficult. Considerable palpitation. Much sweating. Pulse very quick and wiry. Tongue moist, rather furred. No vomiting or pain. Her chief complaints are the cough and oppression of breathing. Bowels torpid.

5th. Passed a bad night. Coughs incessantly. Breathing very quick and laborious. Has pain between the shoulders when coughing. Expectoration scanty and frothy. Much sweating and hectic flushing. Palpitation not relieved. Pulse rapid and tremulous.

Tongue clean. Has not the least appetite. No evacuation from the bowels or urethra.

℞ Ammoniaë Subcarbonatis,

Camphoræ, āā gr.v.

Confectionis Rosæ caninæ q.s.

Fiat bolus quartâ quâque horâ sumendus.

6th. Had a rather better night, but cough is still urgent. Breathing still oppressed. Expectoration scanty. Legs edematous and painful on pressure. Lips parched. Pulse small and rapid; cannot be counted. No vomiting. Less pain on coughing. Urine extremely scanty. No evacuation from the bowels. Swelling of the abdomen continues.

7th. Is apparently sinking. Pulse still countless. Breathing hurried. Cough not relieved. Throat very sore; she is hardly able to swallow. Expectoration rather more copious. Bowels still constipated. Urine thick and scanty.

8th. Is rapidly sinking. Skin cold and clammy. She is nearly pulseless. Breathing short and quick. Countenance sunk and cadaverous. Mind quite collected.

9th. Died at half-past twelve in the night.

9th. Autopsy, at half-past two P. M.

The body presented an emaciated appearance. The abdomen was tumefied. The legs were edematous. On striking the left side of the thorax, a very dull sound was elicited; on striking the right side the sound was clear and healthy. On cutting through the pectoral muscle a small scrofulous abscess was observed. There were strong adhesions of the pleura costalis to the pleura pulmonalis of the left side. The right side was free. There was upwards of a pint of fluid in the left thorax. The pericardium also contained fluid. There was an appearance of newly formed coagulable lymph on the surface of the left lung, which organ presented throughout the complete appearance of grey hepatisation. The right lung was healthy. The heart appeared to be healthy; but it seemed rather detrudded towards the right side. The peritoneum was found strongly adherent to the diaphragm and liver; there were also numerous adhesions of the peritoneal surfaces of the

intestines to each other, with frequent patches of inflammation and numerous tubercles throughout the peritonem. There was a pint or upwards of fluid in the peritoneal cavity of the abdomen. The mucous coat of the stomach and duodenum, of the colon and rectum presented marks of great inflammation.

OBSERVATIONS.

After the many remarks which you have heard from me in the course of these lectures, I do not apprehend, gentlemen, that the present case need detain us very long. This girl appears to have died of gastro-enteritis with general exhaustion of the whole system. I do not suppose that any thing could have saved her.

I confess I was a good deal puzzled by her symptoms. At first from her sore and ulcerated throat, from the pains in her limbs, and from her peculiar complexion, I thought she was labouring under secondary syphilis. I therefore ordered her a corrosive sublimate gargle, with the compound decoction of sarsaparilla, and the hot bath, but without any mercury internally, as I conceived her appearance indicated she had already taken too much of that mineral.

She seems to have been a poor scrofulous creature, liable to inflammation in every part of her system. The peritoneal inflammation was, however, attended with so little pain even on pressure, that I think I ordered leeches only once; nor do I suppose she would have been benefitted by more, or would

even have borne them much oftener, or in much greater number.

The hepatisation of the left lung I suppose to have been the consequence of sub-inflammation, and to have consisted in the effusion of coagulable lymph, that is, fibrine, in the air-cells of the lung, where it exerted its instinctive faculty of self-organisation, and thus became part and parcel of the lung.

The girl had many marks of scrofula about her. She had a small scrofulous abscess on the sternum, with a scrofulous tumour on the left arm; both of which disappeared immediately after one of her violent attacks of vomiting. I account for their disappearance by supposing that absorption was increased by the vomiting, and I suppose that absorption is increased by vomiting in this way. During sickness and vomiting the action of the heart is much diminished. The blood is not sent in such quantity or with such force along the arteries; the veins are consequently less distended, and therefore absorb more rapidly; for, I suppose you to be aware that the veins, and not the lymphatics, are the true absorbents, and that their power of absorption is greatly increased by a diminution of the quantity of fluid which they contain and convey. All this I shall enter into more at length in my lecture on dropsy.

This girl's inflammation of the peritoneum seems to have been also of a scrofulous nature; and upon the examination of her body after death there was

found a scrofulous abscess under one of the pectoral muscles. And yet this girl, scrofulous as she was, does not appear to have worked in a cotton-factory. The fact is that working in a cotton-factory, would, if begun in time, have been the most likely means of curing all her scrofulous symptoms; for the working in a cotton-factory is often found to be a cure for scrofula. This is to be attributed to the dryness, the warmth, and the airiness of cotton-factories, the lightness of the work, and the superior food and clothing, which the present wages of the workpeople enable them to obtain. The scrofulous limbs which are amputated in this Infirmary, are, I can assure you, in very few instances indeed those of people employed in cotton-factories. During the more than sixteen years in which I have had the honour to be physician to this Infirmary, I have made a practice, at the consultations previous to operations, to which you know the physicians are summoned as well as the surgeons, of asking every patient with scrofula, what was his or her employment, and I say without fear of contradiction that the number of cases from cotton-factories has been so small as to amount nearly to none.

Mr. Charles Greswell, a very respectable surgeon in Strangeways, informed me a few days ago, that he had within a short time examined thirteen hundred cotton-factory people; he had found no scrofula among them, except in one boy of fourteen years

of age, who had had scrofula when an infant, but had been quite cured, since he came into a cotton-factory.

CASE XXXVII.—Gastro-enteritis chronica, complicated with Peritonitis chronica and Pleuritis chronica.

30th July, 1833.

Samuel Ridgway, a boy in the 14th year of his age, working in a cotton-factory, says he met with an accident four years ago, when he fell through a trap-door into the story below. He was much alarmed and bruised; but did not immediately experience any pain in the chest, nor until some time afterward, when he perceived a tumour in the right breast, accompanied by troublesome cough and pain on inspiration. After the tumour had supplicated and burst, two similar abscesses formed on the back. About fifteen months ago another abscess appeared on the left breast, which also supplicated and burst.

At the time of his admission, his pulse was quick and rather wiry; skin hot; had pain on inspiration with a quick hard cough. He says he often expectorates freely. The ulcers have not yet healed. Tongue quite red but clean. Some thirst. Appetite moderate. Bowels natural. Some tenderness on pressure over the abdomen. Restless nights with colliquative sweats.

To have a blister-plaster to the chest.

℞ Tincturæ Digitalis f̄ss.

Misturæ Acidi Sulphurici f̄vi. Misc.

Sumatur f̄jss. quater quotidie.

To lie in bed and have rice diet.

31st. Tongue very red and shining, but moist. Has much thirst. Bad taste in his mouth. Very little appetite. *Bowels loose.* Abdomen tender on pressure. Pulse quick and feeble. Breathing laborious, particularly when in the horizontal position.

Has much pain on inspiration, and when coughing. On percussion the right chest emits a dull sound. Cough rather better; very little expectoration. Legs rather swelled. Urine scanty and high-coloured.

1st August. Pulse small and quick, 116. Skin hot. Great thirst. Tongue still red, shining, and moist; quite clean. Appetite rather better. Abdomen more tender to pressure. Cough still rather urgent. Breathing improved. Pain in the chest better. Gets very little sleep.

To have six leeches on the abdomen.

To take one grain of calomel in the form of pill night and morning.

2nd. Feels better. Has less pain in the chest. Breathing is more free. Cough is less troublesome. Pulse quiet and slower. Tongue still red, shining, moist, and clean. Less tenderness in the abdomen since the application of the leeches.

3rd. Less pain in the abdomen; but it is much swelled, particularly after eating. Has shooting pains across his breast. Pulse and tongue as yesterday. Purging continues.

To omit the pills and the mixture.

℞ Tincturæ Opii fʒss.

Misturæ Cretæ fʒvi. Miscæ.

Sumatur fʒj. quater quotidie.

4th. Passed a bad night. Had acute pain in his breast. Feels a little easier this morning. Pulse 112, small. Skin cool. Face and legs edematous. Tongue still very red and slightly furred. Cough troublesome. Breathing difficult. Pain on inspiration less. Abdomen swelled, but not so tender. Urine scanty. Much thirst. Bowels less purged, but stools loose and very dark-coloured. Appetite bad. Has a bad taste in his mouth.

5th. Feels better. Passed a more comfortable night. Tongue still red and morbidly clean. Less pain in the abdomen. Not so much purged. Still complains of cough and difficulty of breathing. Has less pain in the chest. Pulse 120. Skin hot and dry. Urine scanty.

6th. Had pain in his chest during the night, but feels considerably better this morning. Cough is still urgent, but breathing is more free. Tongue continues red, shining, and moist; papillæ raised. Bowels loose; feces light-coloured and slimy. Appetite bad. No tenderness or pain in the abdomen. Pulse 116, soft and regular. Skin cool. Less thirst. Urine more plentiful.

To take five grains of the Hydrargyrum cum Cretâ four times a day.

7th. Pulse 116, small and feeble. Passed a bad night. Tongue less shining, but still red. Less purging. Has still pain on respiration. Cough dry.

8th. Passed a bad night. Had much pain in his chest. Pulse 112, feeble. Tongue the same. Bowels still purged. No tenderness of the abdomen. Breathing quick.

To have four leeches on his chest.

9th. Is still purged. Tongue the same. Has much pain in his chest. Pulse 112, feeble. Breathing less difficult.

To omit the powders.

℞ Hydrargyri cum Cretâ.

Pulveris Cretæ compositi cum Opio, āā gr.v. Misc.

Fiat pulvis quater quotidie sumendus.

To continue the mixture.

10th. Purging unabated. Pulse 116. Skin moist. Tongue the same.

11th. Feels much better. No pain in the chest. Purging relieved. Tongue less red; more natural. Pulse 120, feeble.

12th. Some pain in the chest. Pulse 112. Much thirst. Sweats a little. Cough not so urgent. Not much expectoration. Purging diminished. Tongue more natural. Abdomen swelled, but not tender.

13th. Pulse 120, small and feeble. Has pain still in the chest. Cough and purging diminished. Tongue more natural. Abdomen much swelled. Urine scanty.

To have four leeches to the chest.

14th. Feels better. Pain is relieved. Pulse 118. Purging abated.

To have six leeches to the belly.

Common poultices afterwards.

15th. Pulse 120 and feeble. Tongue rather redder. Appetite continues bad. Purging has recurred. No soreness of the abdomen. Less pain in the chest, but the breathing is difficult, and the cough troublesome. Belly still swelled. Urine very scanty.

To have six leeches to the chest.

16th. Did not sleep well. Much cough and difficulty of breathing. Tongue moist, but deeply red and shining in the centre, pale and natural at the sides. No pain or tenderness of the abdomen. Appetite improved. Purging abated. Pulse 108. Belly still swelled. Urine scanty. Very little pain in the chest.

17th. Slept rather better. Still has a dry cough and difficulty of breathing. Pulse 112. Tongue clean, less red. Appetite very indifferent. Bowels quiet, not purged. Abdomen less swelled. Urine more plentiful.

To have six leeches to the chest.

18th. Pulse 130, wiry and feeble. Says he feels better. Breathing is more free. Tongue improved. Bowels open once to-day. Has less pain in the chest; none in the abdomen.

19th. Did not sleep very well. Is still annoyed by cough and difficulty of respiration, with occasional pains in the chest. Tongue much more natural. Appetite improved. Bowels quite regular. No purging. Pulse 120, rather intermittent. Belly less tumid. Urine increased.

To have a blister-plaster to the chest.

20th. Less pain since the blister. Pulse 108. Cough less urgent; still dry. No sweating. Bowels opened three times to-day, but not loose. Tongue still extremely red in the centre. No pain of belly. Voids more urine.

21st. Slept well. Feels better. No pain. Less cough. Pulse 130, small. Tongue still red. Continues thirsty. Appetite better. Very slight purging. *Complains of a burning sensation in his throat.* Gums are sore. Swelling of the belly nearly subsided.

23rd. Has felt no pain in his chest. Cough better. Bowels not purged. Pulse 140, very feeble and thready. No swelling.

24th. Tongue still very red, but clean. Pulse 125, weak. Does not sleep well. No complaint of pain. Cough better. Bowels not loose. Appetite bad.

25th. Tongue furred in the centre, and very red at the edges. Bowels quiet. Appetite very bad. Feels very weak. Pulse 120, small. No pain. Gums very sore.

To omit the powders.

To take five grains of the *Pulvis Cretæ compositus cum Opio* four times a day.

26th. Tongue cleaner than yesterday. Still thirsty. Pulse 108. Bowels remain quiet and natural. Cough better. No pain. Slept very well.

27th. Pulse 120. No purging. No pain. Very little cough. No appetite. Mouth less sore. Very little swelling of the abdomen. Urine rather scanty.

28th. Pulse 100, feeble. Had only one motion yesterday. Continues free from pain.

30th. Pulse 125, weak. Bowels regular; he has generally one healthy motion every day.

1st September. Feels better. Pulse 120, small and weak. Tongue unchanged. Bowels regular. Sleeps ill. Has difficulty in breathing. Coughs much without expectorating. No pain in the chest.

2nd. Pulse 120, feeble. Tongue more natural. No purging. No pain. Complains of dry cough and difficulty of breathing.

To have a blister-plaster on his chest.

3rd. Breathing more free since the blister. Pulse 120, feeble. Tongue furred, but moist, and less inflamed. Bowels quiet. No pain.

5th. Tongue red and aphthous. Bowels regular. No pain. Cough and difficulty of breathing much alleviated. Much thirst.

6th. Bowels rather costive. Tongue still inflamed, but cleaner. Pulse 120, feeble. Very little cough. Breathing more free. Appetite improved. No pain.

To take two drachms of castor-oil immediately.

7th. The castor-oil purged him four times. Did not sleep well. Cough rather worse.

9th. Cough is dry and urgent. Breathing much as before. Tongue morbidly clean, moist, shining, and red; the fauces also florid. Bowels not moved since Saturday night, the 7th. Pulse small and quick. Feels thirsty. Urine scanty. No pain in any part of the abdomen, on pressure or otherwise.

11th. Complains much of want of sleep. Cough more urgent. Bowels quiet. Tongue rather more inflamed. Pulse 120, very feeble.

R Liquoris Morphinæ Acetatis m.ij.

Misturæ Ammoniacæ Acetatis f̄ʒj. Misco.

Fiat haustus horâ somni sumendus.

12th. Cough has been worse, and the breathing still difficult. Bowels remain quiet.

To have a blister-plaster to the chest.

13th. Cough and breathing better since the blister.

16th. Tongue improved. Appetite a little better. Bowels regular and healthy. Pulse 120, very small and feeble. Not much cough. Breathes more freely. Sleeps badly. Has no pain in the chest or abdomen except some tenderness on pressure over the left iliac region. Abdomen not much swelled.

19th. Feels better. Bowels costive. Tongue better. Appetite improved. Cough and breathing much relieved. Pulse still very rapid and feeble.

To take one drachm of castor-oil immediately.

20th. Bowels were twice moved by the oil. Stools not loose. Tongue apthous, less clean than before. Pulse still quick and feeble. Cough and respiration better.

21st. Does not sleep well.

To increase the dose of the Liquor Morphinæ Acetatis to five minims.

22nd. Had a better night.

24th. Sleeps better. Has no pain. Urine very scanty.

27th. Tongue more natural. Makes no complaint of pain. Breathing still rather hurried.

1st October. Tongue continues red. Has some pain again in his chest. Breathing occasionally difficult. Pulse quick and feeble. Bowels regular. Tongue as before. Appetite bad. Urine scanty.

To have four leeches to the epigastrium.

Poultices afterwards constantly.

2nd. Cough troublesome. Otherwise as before.

To have four leeches to the epigastrium.

3rd. Feels better, but does not sleep well. Pulse 110, small and very feeble. Tongue unchanged. Bowels quiet.

To increase the dose of the *Liquor Morphinæ Acetatis* to seven minims.

6th. Feels better. Very little cough. Appetite better. Thirst continues. Tongue very red and glazed. Bowels not purged.

9th. Has pain in the chest when coughing. Otherwise as before.

Allowed to sit up.

11th. Still complains of pain in the chest. Is otherwise as before.

To have the hot bath every night.

12th. Cough worse. Expectorates very little. A little pain in the chest. Tongue red as before.

To take a teaspoonful of the *Linctus Papaveris* when the cough is troublesome.

13th. Cough and dyspnea very troublesome. Has still pain in the breast. Pulse very quick and irregular. Tongue very florid and aphthous.

14th. Discharged relieved, at his own request.

2nd November. Attended to-day as an out-patient. Came from Duckinfield by the stage-coach. Seems pretty well. All his symptoms appear relieved, except his diarrhœa, which is still troublesome.

OBSERVATIONS.

When this lad came into the house he laboured under a complication of disorders, all of which may probably be fairly imputed to the accident he met with about four years ago. The treatment you have witnessed, and also the success, such as it has been. I am of opinion that nothing but time, rest, and unirritating diet will completely restore him, with the use of some necessary articles of medicine. He is a scrofulous subject, and if he could have a bed put into one of the warm, dry, and airy rooms of a cotton-factory, it would probably do more for him than any thing else.

PERITONITIS CHRONICA.

CASE XXXVIII.—Peritonitis chronica.

17th June, 1833.

James Currie, a weaver, aged 60, married, has been ill ten days. He says he first felt a griping pain in the bowels. The belly was swelled and painful upon pressure. He frequently vomited green bitter matter. Has had several dark-coloured motions, but still the pain continued. Was very much troubled with wind, and had no appetite. Has been taking advice and medicine, but without relief.

17th. Tongue coated with white, and moist; edges and tip red. Pulse 95, weak and wiry. Thirst great. Abdomen swelled and very painful on pressure. The pain is not acute but constant. It is not a twisting pain, but more a sense of tenderness, which is

very much aggravated when vomiting. He has not vomited since yesterday. Feels an occasional desire to go to stool, but passes nothing. His urine is high coloured. His spirits are much depressed; he sleeps badly, and is much annoyed by frightful dreams.

Apply ten leeches to the belly.

Common poultices afterwards.

One grain of calomel in the form of pill, four times a day.

Rice diet, biscuit, and barley-water.

To lie in bed.

18th. He seemed somewhat relieved by the leeches, and at 10 P. M. appeared to be doing well: but early this morning the house-apothecary was called up to him, and found him rapidly sinking. An attempt was made to rally him by brandy and other stimulants, but in vain.

He died about six this morning.

Autopsy. Upon opening the abdomen the following appearances presented themselves.

There were considerable adhesions of the peritonæum to the great omentum. The abdominal cavity was filled with venous blood, which on minute examination, appeared to have issued from the superior mesenteric vein near to its union with the splenic. Anteriorly to this vein was a bloody tumour, situated between the layers of the mesentery. It had all the appearance of coagulated blood of a very firm consistence, and of a very dark colour. On the peritoneal surface of the small intestines were several patches of dark-coloured inflammation. These were most numerous on the ileum. The mucous lining of the stomach and intestines appeared healthy. The kidneys were healthy. No other morbid changes were perceived.

It has been since ascertained that the day previous to his admission he had been fighting in a drunken brawl.

OBSERVATIONS.

This case speaks sufficiently for itself. As soon as I put my hand on the abdomen of the patient,

and perceived the great tenderness on pressure, I marked the disease, in my book, chronic peritonitis, and the inspection has confirmed my diagnosis. The treatment which I laid down for him was diluent and mucilaginous diet, leeches and poultices to the abdomen, with one grain of calomel four times a day. My intention in giving the calomel was to bring the system gradually under the action of mercury : for you know I have already told you that the mercurial action is the most certain remedy for inflammation in almost all the textures of the body, but more especially in serous textures. The man's age, and the chronic character of the complaint forbade the general abstraction of blood, but the ten leeches which were applied to his belly appeared to give him relief ; and I have little doubt we should have gone on very well had it not been for the rupture of the blood-vessel, the superior mesenteric vein, in the abdomen. There can be little doubt that this blood-vessel was injured, by a blow or kick on the belly, in the drunken brawl in which he had been engaged the day previous to his admission ; but whether the inflammation of the serous membrane of the abdominal cavity, constituting peritonitis, was occasioned by the same circumstance, or had existed, as he himself said, for ten days, it is perhaps at present vain to inquire. He seemed to have been a drunken, dissolute, brawling native of the sister kingdom.

CASE XXXIX.—Peritonitis chronica. Chronic Peritonitis.
12th August, 1833.

Hannah Bowker, a weaver, aged 16, unmarried, says she has been ill nine months. The disease came on with vomiting, diarrhea, and pain in the belly. These lasted some time, but have now nearly left her, except the pain in the belly, which is occasionally very acute. Bowels are frequently loose. The lower part of the abdomen is very tender to pressure. Pulse 100, pretty strong. No thirst. Tongue clean. Appetite good. She menstruated for the first time last Christmas, but has seen no catamenia since.

To have twelve leeches to the abdomen.

A blister afterwards.

Common poultices afterwards.

℞ Tincturæ Opii fʒss.

Misturæ Cretæ fʒvi. Misc.

Sumatur fʒj. quater quotidie.

To lie in bed, and have rice diet, biscuit, and barley-water.

13th. The pain was quite relieved by the leeches. No tenderness. Feels well. Tongue clean. Appetite good. Bowels regular.

14th. Feels well, but has a little pain in the abdomen.

15th. Had much pain in the abdomen during the night. Bowels purged. Vomited twice. Feels better this morning. Pulse 128, small. Tongue whitish. No tenderness on pressure.

16th. Is quite well this morning.

To omit the medicine.

19th. Discharged quite cured.

CASE XL.—Peritonitis chronica, followed by Cystitis chronica.
1st July, 1833.

James Barnes, aged 35 years, a weaver, married, was treated, four months ago, for inflammation of the bowels. He thinks the inflammation originated in having taken cold. Has never been

free from pain in the abdomen since that time. Has also pain in the back. The belly is very tender upon pressure. Has some little difficulty in voiding his urine. Tongue is clean. Appetite good. Pulse rather feeble, but soft and regular.

Twelve leeches to the belly.

A blister afterwards.

Common poultices both before the blister and after the blister, to be kept constantly applied to the belly.

One grain of calomel in the form of pill, four times a day.

Castor-oil when required.

To lie in bed, and take rice diet, biscuit, and barley-water.

2nd. Pains in the back and belly much relieved. Bowels open.

Voids his urine more feely and in greater quantity.

5th. No pain. Still a little difficulty in voiding his urine.

Mouth rather sore.

6th. Mouth still sore ; but he continues otherwise much better.

Omit the pills.

Use a wash of acetic acid for the mouth.

13th. Has continued to improve. Pulse full and strong.

Ordered to sit up, and take common diet.

14th. Bowels costive. Castor-oil makes him sick.

Misturæ Sennæ compositæ f̄ij., when required.

16th. Complains of difficulty in voiding his urine, which is scanty. Frequent calls to make water, with irritation of the external orifice of the urethra. Some little pain in the back and lower part of the belly. Bowels open.

Six leeches to the hypogastrium ; i. e. over the region of the bladder.

Common poultices afterwards.

℞ Potassæ Carbonatis ʒij.

Misturæ Camphoræ f̄vi. Miscce.

Sumatur f̄ʒjss. quater quotidie.

To lie in bed, and resume his rice diet.

17th. Voids his urine with less difficulty. Less pain in the back. Less soreness of the belly. Bowels open. Tongue clean. Mouth better. Pulse full and quick.

20th. Voids his urine freely and without pain. Does not complain of any pain in the back or abdomen. Tongue clean. Appetite good. Bowels regular. Pulse healthy.

22nd. Discharged cured.

OBSERVATIONS.

Chronic Peritonitis is a very insidious disease; inasmuch as patients not unfrequently die of it without having experienced much, if any, pain. You must, therefore, be upon your guard, and if, upon placing your open hand on the middle of the abdomen and pressing pretty smartly and strongly, the patient shrinks and complains of pain, you may be sure what the disease is. You will, therefore, bleed either from the arm, or by placing a number of leeches on the belly. The latter plan is generally the most suitable. After the leeches have come off, you will apply a large poultice, to encourage the bleeding, and after the bleeding has ceased, you will cover the abdomen with a tolerably large blister. After the blister has operated by raising the cuticle, you will poultice again until the blistered surface heals.

Whilst you are going on with these things, you will not forget what I told you of the virtue of mercury in removing inflammation from, perhaps, all the textures of the body. You will, therefore, give calomel in small doses frequently repeated. I say calomel, because its purgative effect is not to be lost sight of, especially in the disease we are now considering; but, if it should fail in opening the

bowels sufficiently, you must administer a proper quantity of castor-oil, or, if that should not agree with the patient, you may give him salts and senna.

The diet should be mild, farinaceous, and mucilaginous, with a perfect abstinence from animal food and fermented liquors. Absolute rest in bed must be strictly enforced.

You will observe that, in this case, eight days after the pills had been omitted, there came on irritation or sub-inflammation of the mucous coat of the urinary bladder. If this had come on sooner, whilst the mouth was under the mercurial influence, I should have considered it a proof that mercury does not possess the power of resisting inflammation in mucous membranes. But, as it is, I can draw no conclusion on that point. You will see that I treated the inflammation of the bladder by leeches and poultices above the pubes, and by large doses of carbonate of potass, thirty grains four times a day. The object of giving the alkali is to render the urine less irritating to the bladder. Care was also taken that the patient should lie in bed again, and that he should resume his rice diet, biscuit, and barley-water.

You will please to recollect that the inflammation of the mucous coat of the bladder was attended with irritation of the external orifice of the urethra, and I have just to remind you that in acute blenorrhœa, where there is inflammation of the external orifice of the urethra, the patient experiences irritation of the

bladder, with incessant calls to void his urine. This is agreeable to a law of the system that inflammation or irritation at one end of a canal excites irritation or inflammation, or some violent action, either normal or otherwise, at the other end of that canal. We shall have occasion to make use of this pathological fact in our treatment of patients, and in our lectures on the treatment.

DUODENITIS + DIARRHŒA.

CASE XLI.—Diarrhœa, from Duodenitis.

12th August, 1833.

Alice Smethurst, a hand-loom-weaver, unmarried, in the 22nd year of her age, says she has been ill six months. She complains of much purging. The stools are loose, light-coloured, and slimy. No tenesmus. Very little pain except in the lumbar region, and occasionally in the epigastrium toward the right side. Pulse 88, feeble. Has a ravenous appetite, but purging invariably follows every meal. Tongue is clean. Catamenia very irregular. Has had menorrhagia ever since the first attack of her complaint, and has been much weakened by it.

To have twelve leeches to the right side of the epigastrium.

Common poultices afterwards.

℞ Tincturæ Opii fʒj.

Misturæ Cretæ fʒvi. Misce.

Sumatur fʒjss. quater quotidie.

To have rice diet, biscuit, and barley-water.

13th. Has not been purged since yesterday. Pulse 96, full.

Tongue clean, but red. Less pain in the epigastrium. Has some pain across the loins. Has occasional pain in the thighs, knees, and legs.

To have ten leeches to the right side of the epigastrium.

To continue the mixture.

14th. Feels much better. Pulse 90, feeble. Tongue clean. No pain. Bowels composed.

To continue the poultices and mixture.

15th. No pain nor purging. Says she has had some tenesmus. Bowels rather costive. Tongue clean. Appetite improved. She is troubled with wind. Pulse 88.

To take half an ounce of castor-oil immediately.

16th. Bowels have been freely opened. No tenesmus. No pain. Feels very feeble. Pulse 90.

To go on with the rice diet, biscuit, and barley-water.

18th. She is nearly quite well.

19th. Discharged perfectly cured.

OBSERVATIONS.

This girl had diarrhea. Upon pressing the right side of the epigastrium she complained of pain. It was evidently a case of duodenitis. Now, how inflammation of the mucous membrane of the stomach and of the duodenum sometimes causes pain upon pressure, and sometimes does not, whilst inflammation of the mucous membrane of the ileum or of the colon, I believe, never causes pain upon pressure, I am unable to explain. But I believe I can explain why inflammation of the duodenum should produce diarrhea. It is on the simple principle that irritation or excitement at one extremity of a canal in the living body produces inordinate action at the other extremity. So we see that in

the present case every meal was followed by a purging; the fact being that the food, in passing through the duodenum rendered highly irritable by inflammation, excited an inordinate secretion of bile, which, being sent into the intestines, produced the purging. However, by the application of two sets of leeches, of ten or twelve each, and by the taking of the tinctura opii with the mistura cretæ, she was cured in about three days, and was sent out of the house in seven days. She had been ill six months.

DUODENITIS + JAUNDICE.

CASE XLII.—*Icterus duodenalis*. Jaundice from inflammation of the duodenum.

12th August, 1833.

Mary Ann Hollingsworth, a domestic servant, aged 41, unmarried, says she has been ill a fortnight. The complaint came on with pains in all her limbs. She had much sickness and purging, but did not vomit, and she perceived a yellow tinge of her skin. When admitted the tongue was furred; appetite impaired; she had pain in the right side of the epigastrium, over the duodenum, none in the region of the liver. Bowels purged; feces loose and clay-coloured. Urine very dark-coloured. Pulse 84. Has pain in the limbs. No catamenia for the last twelve months. Much depression of spirits. Sleeps badly; often starts suddenly from sleep through terrifying dreams. The skin is tinged of a deep yellow; the conjunctiva is also coloured.

To have twelve leeches applied to the right side of the epigastrium, over the duodenum.

To take one mercurial pill night and morning.

13th. Decidedly less pain in the epigastrium since the application of the leeches. Had still pain in the thighs and legs. Tongue cleaner. Appetite better. Bowels open. Feces bilious. Urine very dark-coloured.

To have ten leeches applied to the right side of the epigastrium.

14th. Feels much better. No pain in the side; less in the limbs. Pulse 90, feeble. Feces and urine the same.

To continue the pills.

15th. Pulse 90. Bowels regular. No pain. Skin much clearer. Tongue clean. Appetite good. Sleeps well. Feces still clay-coloured.

16th. Feels better. No pain. Pulse 90. Tongue clean. Appetite good. Feces and urine nearly natural.

To omit the pills, and take the following mixture.

℞ Potassæ Carbonatis ʒij.

Tincturæ aromaticæ fʒiv.

Infusi Calumbæ fʒvss. Misce.

Sumatur fʒjss. quater quotidie.

17th. Has still a little pain in the back and limbs; none over the duodenum. Tongue clean. No sickness. Appetite good. Pulse 100. Bowels regular. Feces and urine quite natural. Skin much clearer.

20th. Still better. Skin much improved. Pulse 90. Tongue clean. Bowels open. Feces and urine quite natural. Sleeps well. Has a little pain in the back, and in the calves of the legs; none in the epigastrium or side.

21st. Continued to improve daily until

2nd September. Discharged quite cured.

OBSERVATIONS.

I knew, gentlemen, that this case of jaundice depended on inflammation of the duodenum, partly

from the pain upon pressure over the duodenum, and partly from the circumstance that the disease was ushered in with sickness and purging, pain in all the limbs, and the sleep disturbed by terrifying dreams. I apprehend the mode in which inflammation of the duodenum produces jaundice, is by the inflammation extending up the ductus communis choledochus, and thickening the mucous membrane so as to choke up the passage. You have seen how rapidly the disease was removed by the application of leeches to the epigastrium.

This species of jaundice is not, as far as I am aware, mentioned by any author. It may, perhaps not inappropriately, be named *icterus duodenalis*.

HEPATIC JAUNDICE.

CASE XLIII.—*Icterus hepaticus*. Hepatic Jaundice.
11th June, 1833.

. Anne Charlesworth, aged 56 years, a housewife, and married, has been ill since December last. She then felt pain over the whole body, with a constant purging of blood and mucus. She afterwards perceived her skin tinged with yellow.

11th. The skin and the conjunctiva are deeply tinged with yellow. Bowels very loose; the motions slimy and whitish. Tongue white and furred. Bad taste in the mouth. Appetite impaired. The hepatic region is not painful on pressure; but she says she is frequently seized with acute pain in the right side,

which extends upwards to the right shoulder: when thus affected she can lie with more ease on the right side. Has some pain in the loins and down the right thigh. Pulse 80, soft and regular. Urine muddy, with a bilious tinge. Has a great sense of lassitude and debility. Sleeps well, but has startling dreams. When first seized she felt an intolerable itching all over the body, which for two months prevented her from sleeping, being increased when she was warm in bed. Since her admission she has felt nothing of this.

Pilulæ Hydrargyri gr.v. omni nocte sumenda.

13th. Had some pain in the right hypochondrium last night; finds it relieved by pressure. Bowels open three times in the night. Stools whitish, scybalous. Is much troubled with wind.

14th. Spirits less depressed. Has a short dry cough.

To take the *Pilula Hydrargyri* twice a day.

16th. Motions somewhat darker. Tongue cleaner. Skin lighter. A great deal of flatus, and nausea. Spirits much depressed.

17th. Tongue loaded. Pulse very weak. Stools still white. Colour of urine less deep. Skin a little clearer. Depression of spirits is very considerable. Has been several times attacked with feelings of faintness as if she were going to fall down, and saw every thing swimming around her. Feels no pain except an uneasiness at the epigastrium, like a sense of burning. Her low spirits have prevented her from sleeping.

R Liquoris Morphinæ Acetatis m.v.

Aquæ puræ fʒj. Miscæ.

Fiat haustus omni nocte sumendus.

The warm bath every night.

19th. Pulse very weak. Tongue rather cleaner, streaked with red. No appetite. Motions unchanged. Urine darker. Great debility. Still sleeps ill.

Increase the *Liquor Morphinæ Acetatis* to nine minims every night.

20th. Her uneasiness and depression of spirits increasing, she grew impatient of remaining in the Infirmary and was sent home at her own request.

OBSERVATIONS.

You know, gentlemen, there are usually reckoned four species of jaundice, to which adults' are subject. 1. Biliary jaundice, in which the ducts are obstructed by a clot of thickened viscid bile. I apprehend the case before us was not a case of this kind, because it is most probable that before the lapse of six months the obstructing clot of bile would have made its exit into the duodenum. 2. Gall-stone jaundice, in which the passage of the bile is impeded by the presence of gall-stones in the biliary ducts, causing great pain in the epigastric region: which pain in the case before us, did not exist; showing that this was not the species of jaundice with which our patient was affected. 3. Spasmodic jaundice, in which the flow of bile is obstructed by a spasmodic constriction in the course of the bile-ducts: which, however, soon gives way, leaving the bile-ducts free. Now, as our patient had been ill six months, it is not probable that her complaint had its origin in so temporary a cause. We come, therefore, to the 4th and last species, Hepatic jaundice, in which the course of the bile is obstructed by a derangement of the liver from scirrhus or other indurations. This, I believe, is the disease of our patient, and is decidedly the worst form in which jaundice ever appears. It is frequently the mark of a broken state of health; it rarely appears, as the other species often do, among the young and vigorous; but mostly among those who have lived in a hot climate, or who have led a life of hard drinking.

As for the treatment, I intended to try the effect of small doses of mercury, continued for a considerable length of time, and when the mouth should become affected to exchange the mercury for small doses of the pilula aloës cum myrrhâ, which, in a manner that I shall explain another time, produces upon the liver the same effect as mercury. I should also most probably have employed the nitro-muriatic bath, which is said to have a remarkably specific effect upon the liver and its secretion; and if I should obtain a patient fit for its employment, I trust I may yet have an opportunity of exhibiting it to you. The warm bath and the acetate of morphine I employed for the purpose of giving her good nights, and allaying her excessive general restlessness. This last, however,—her restlessness I mean,—increased so very much, and made her so importunate in her entreaties to be allowed to go home, that, taking into consideration the very great hopelessness of her recovery, I at last consented to allow her to leave the house.

In commencing the enumeration of the species of jaundice, I made use of the expression, “*usually reckoned*;” because there is another species not usually mentioned by authors, to which I have given the name of icterus duodenalis, and which has its origin in an inflammation of the duodenum. This inflammation induces a greater secretion of bile, and, when the inflammation extends up the bile-ducts, it thickens the mucus membrane so as to present an

impediment to the passage of the bile into the intestines, and thus it produces jaundice. This species has not, as far as I am aware, ever been mentioned by authors.

BRONCHITIS.

CASE XLIV.—Bronchitis chronica. Peripneumonia notha. Pneumonitis notha. Pulmonary catarrh. Catarrhus senilis Catarrhus suffocativus. Catarrhus bronchiorum.

7th July, 1833.

James Church, 61 years of age, tailor, a widower, says he has had a bad winter-cough for some years, and has been under treatment for it. About ten days ago he was seized with shivering, heat of skin, great thirst, pain of the head and back, and aching of the limbs.

When admitted, the breathing was laborious, the cough troublesome, with muco-purulent expectoration, and mucous rattle distinctly audible over the whole chest. Pulse rapid, feeble, and very intermittent.

A blister over the whole chest.

Pulveris Ipeacuanhæ compositi gr.viii. horâ somni sumenda.

R Linetûs Sillæ f̄ijss.

Tineturæ Camphoræ compositæ f̄iv. Miscæ.

Sumatur f̄j. pro rê natâ.

8th. Bowels purged twice in the night. Pulse intermittent. Skin hot. Tongue furred.

R Antimonii Tartarizati gr.j.

Aquæ destillatæ f̄viii. Miscæ.

Sumatur f̄j. tertiâ quâque horâ.

R Hydrargyri Submuriatis gr.j.

Opii duri contriti gr.ss.

Fiat pilula secundum artem.

Sumatur j. ter quotidie.

8th. *Vesperè*. Vomited twice. Breathing easier. Mucous rattle. Skin moist. Pulse as before.

9th. Breathing easier. Pulse intermittent and weak.

A blister to the chest.

Olei Ricini fʒij. statim.

9th. *Vesperè*. Breathes with more difficulty. Mucous rattle loud. Pulse as in the morning. Skin cold.

Best French Brandy eight ounces in the day.

10th. *Manè*. Delirium. Breathing quick and laborious. Skin cold. Pulse tremulous. Deglutition difficult. From this time until late in the evening, he sank gradually, and died soon after midnight.

Autopsia. Eighteen hours after death an inspection took place. On opening the thorax no fluid was found in the chest. There were many adhesions of the pleuræ. Upon removing the lungs and examining the trachea and bronchial ramifications the mucous membrane was found inflamed throughout its whole extent, and covered with a muco-purulent secretion. A secretion of the same character oozed out of the air-cells, when a portion of lung was sliced with the scalpel. The mucous membrane itself seemed very soft, and easily abraded. On the lateral part of the lower lobe of the left lung was observed a patch of a green colour, flabby and fetid. When cut into, a bloody sanies oozed out. This part of the lung appeared perfectly gangrenous. The stomach and intestines seemed healthy, both in their mucous and serous membranes.

No other morbid appearances than those detailed above were observed.

OBSERVATIONS.

This is an affection, the proper name of which does not seem very well settled among authors. It

appears to me that the most proper designation for the disease is *bronchitis*, although the late Dr. Mason Good intimates that he considers this an unnecessary use of the term, as this affection is always either a species of catarrh, or a symptom of some form of pneumonia.*

In the case before us we had hardly a chance ; as the man was old, and very feeble, had had a winter-cough for some years ; and, as was shown upon the inspection after death, his lungs were in a very diseased state. It is most probable, too, that he had been a hard drinker. He came from a wretched hole in one of the worst parts of the town, where he had had nothing but the most impure air to breathe.

Nothing appeared able to remove the load of puriform mucus from the bronchii and air-cells, so as to permit the proper intercourse between the atmospheric air and the blood in the lungs, without which intercourse you know that life cannot be long sustained, and the man died, in fact, at last from suffocation. When you meet with the same, or a similar, affection in children, who are very subject to it, you must apply a blister, use the warm bath, and give calomel, and tincture of squill or the ipecacuanha-wine, even so as to produce sickness and vomiting, and you will generally meet with success.

* Study of Medicine. Vol. 2, p. 421.

PHTHISIS.

CASE XLV.—Phthisis pulmonum. Phthisis pulmonalis.
Marasmus Phthisis tubercularis. Pulmonary Consumption.

10th July, 1833.

Thomas Carbury, a tailor, unmarried, aged 21 years, first had a cough about two years and a half ago, from which he recovered. It returned upon him twelve months ago, the time of his first coming to England from his native country, Ireland. It was not very urgent, until he caught cold, two months ago, since which time he has expectorated a great deal, particularly at night. His appetite has failed him. He has become much emaciated. Breathing very short. Sweats at night, and feels exhausted from the least exertion. Percussion over the left pectoral region produces a particularly dull sound, just about the second and third ribs; it causes him also some pain, and produces immediately great coughing and expectoration. By means of the stethoscope applied immediately after this expectoration we perceive distinct pectoriloquy. The patient feels no pain, except in this situation. Bowels are generally costive. Pulse quick and feeble. Expectoration just like pure yellow pus.

℞ Tincturæ Digitalis fʒj.

Misturæ Acidi Sulphurici fʒvi. Miscæ.

Sumatur fʒjss. quater in die.

Linctûs Scillæ, cochleare minus unum, urgente tussi.

12th. Bowels torpid.

Half an ounce of castor-oil immediately.

13th. Bowels freely moved by the oil.

14th. Complains of much pain in that portion of the chest before mentioned. Much increased upon coughing. Pressure over the ribs of that part gives considerable pain, and produces immediate coughing.

A blister immediately to the painful part of the chest.

15th. Pain somewhat relieved by the blister. Pulse 112, very

small. Cough frequent and painful. Expectoration as before. Bowels are relaxed.

16th. Bowels very loose. Pulse much weaker.

Omitte Misturam.

Pilularum Digitalis cum Zimo, No. ij. ter in die.

Port-wine, four ounces daily.

Rice diet.

17th. Pain in the lower part of his left side. Bowels less relaxed. Cough and spitting not quite so urgent.

18th. Still complains of pain at the lower part of the chest on the left side. Pulse 120, feeble. Breathing hurried and laborious.

19th. Continues to feel what he calls the stitch in his side. Cannot lie on his back, or on the side opposite to that in which he feels the pain. Pulse fluttering, countless. Bowels regular.

20th. Bowels much relaxed.

Omit the pills.

R Tincturæ Opii m. xxx.

Misturæ Cretæ f̄vi. Miscæ.

Sumat f̄jss. quater in die.

21st. Bowels much relieved by the mixture. Cough very urgent and painful at night. Expectoration as before. Sweating continues.

22nd. Breathing very oppressive. Cannot stir from his left side, on which he continually lies, gasping anxiously at each inspiration. Complains still of the pain at his side. Skin cold and clammy. Pulse very feeble and quick. Bowels rather confined.

23rd. His bowels not having been moved since yesterday, he was ordered to omit the mixture, and to take two teaspoonfuls of castor-oil last night, which immediately produced much purging, continuing until this morning. Expectoration unaltered. Pulse, a mere fluttering. Percussion over the upper part of the left breast is not now followed by pain or coughing, and produces no dulness of sound; indeed the sound from this spot is now more clear and distinct than that elicited from the opposite side of the chest. The pain he now complains of he refers to the spot previously described, at the lower margin of the left ribs.

Let a blister be applied over the painful part.

24th. Incessant coughing and difficult respiration prevented him from sleeping. The pain in his side has not subsided. Skin is cold. Pulse fluttering and irregular. Cannot lie in the recumbent posture: is obliged to have his head propped up by pillows. Tongue is clean. Bowels quiet. Respiration attended by a rattling. Appears sinking.

25th. His respiration has rapidly become more and more difficult. He died at half-past twelve, P. M.

Autopsy; twenty-six hours after death. Puncture of the left side of the chest gave egress to a quantity of air previously contained in that cavity, and which distended the diaphragm considerably, causing it to project on the left side into the abdominal cavity. The left side of the chest also contained about a pint and a half of fluid, which seemed to be a mixture of pus, blood, and serum, the latter in the largest quantity. In this cavity the lung was a mass of disease. The upper and anterior lobe was collapsed and appeared nearly wasted away. When cut into, this lung presented a series of softened tubercles which, in the upper part particularly, were large and numerous. There were likewise three or four abscesses in this situation; one very large and superficial, corresponding to the first bone of the sternum. The pleura pulmonalis appeared perforated over this abscess, which likewise communicated with the bronchii. The right cavity of the chest contained a small portion of fluid, and the lung on this side was studded with miliary tubercles. On both sides the pleura pulmonalis was connected by strong adhesions with the pleura costalis. The heart and liver were healthy. The stomach was healthy. In the mucous coat of the small intestines, were found marks of inflammation and a few ulcers. The mucous coat of the colon was also inflamed throughout its whole extent, and contained a considerable number of ulcers.

OBSERVATIONS.

Gentlemen, this is a case such as you will meet with many in your private practice, where every ray

of hope has left your own minds as well as the minds of the patient's friends, but where she still allows her last departing beams to linger upon the mind of the patient himself, who, in this disease above all others, never allows himself to doubt of an ultimate recovery. If the cough would but leave him, or if he could but get quit of the night-sweats which weaken him so much, and could only acquire a little strength, he is always sure that he could recover; although every one else sees that he is dying.

In this case we tried percussion, and the sound produced on the upper part of the left side was dull, doubtless because the abscesses which we afterwards found on that side, were filled with pus; but our percussion invariably caused coughing and expectoration, after which on applying the stethoscope, we found pectoriloquism. This, I apprehend, arose from the cavities communicating with the bronchii being emptied of their contents. But how are we to explain the clear distinct sound which was produced by percussion on the same side a couple of days before his death. I imagine that an opening had taken place from one of the abscesses through the pleura so as to allow the passage of atmospheric air into the cavity of the pleura, which accounts at once for the clear distinct sound during life, and also for the state of collapse in which we found the lung after death.

There is nothing to be said about the treatment when the disease has reached this stage. All you

can do, is to palliate symptoms; give the patient something for his cough, something to procure him sleep at night, and also to check the tendency to diarrhea. All these purposes are best answered by the administration of opium or of laudanum, which, of all medicines is the best calculated to ease the patient's sufferings, and smooth his passage to the grave.

If you are called in to consumption at an earlier stage, it will be your business in the first place to ascertain whether the cough and irritation of the chest may not depend upon the existence of a latent *gastro-enteritis*, which may bring on consumption in the way I have already mentioned to you. If it do depend upon this latter affection, you must treat it accordingly.

If the patient appear to possess an hereditary disposition to consumption, you must recommend him to take up his residence on the south coast of England, in the south of France, or of Italy, or, what would be better still, in Egypt, where the disease of consumption is entirely unknown. If the patient cannot afford the expense of removing to any of these places, then you must treat him in the best manner you can at home. If he have cough and pain in the chest, you must apply a few leeches in proportion to his age and strength. Afterwards a blister will be exceedingly useful; or even a succession of blisters. The tartar-emetic ointment so as to produce a number of pustules on the thorax

will also be attended with benefit. Digitalis to lower the action of the heart, with sulphate of zinc, and dilute sulphuric acid, to check any tendency to sweating, and also to keep up the strength, will be beneficial. Emetics of ipecacuanha, of sulphate of zinc, and tartar-emetic, may also be tried two or three times a week. These produce their good effects in two or three ways: they lower the action of the heart, they promote absorption, and by the violent action, which they induce in the diaphragm, they have a tendency to squeeze the lungs, so as to empty any abscesses or suppurated tubercles which may have formed. When the pain, irritation, cough, and expectoration are by these means overcome, then the use of tonics will be advisable, as the sulphate of iron, and the sulphate of quinine.

During the whole progress of the treatment the cough must be alleviated by the use of opium, or, what is better, the acetate of morphine; and if diarrhea come on, it will be most effectually checked, as it was in the case before you, by the chalk-mixture and laudanum.

The diet must consist of the various mucilaginous and farinaceous articles, with milk, butter-milk, either sweet or sour according to circumstances, and whey. Irish moss dressed with milk, arrow-root, sago, tapioca, rice-pudding, in short all the articles of diet recommended in *gastro-enteritis*, will be advisable, with the addition of isinglass and calf's-foot-jelly.

Exercise, on horseback, in a carriage, or in a sailing boat, or when the weather will not allow of these, in a swing at home, must not be omitted.

CHRONIC PLEURISY.

CASE XLVI.—Pleuritis chronica. Chronic Pleurisy.

12th August, 1833.

Ann Sykes, aged 26 years, married, and works in a cotton-factory, has been ill two months. She complains of pain in the breast, not constant, but occasionally very acute, and shooting to the back. It is increased on inspiration. One part of the chest is very tender on pressure. Her general health is good, but she feels weak. Appetite good. Bowels regular. Pulse natural. No cough.

To have ten leeches applied to the left side.

A blister afterwards.

A mercurial pill night and morning.

Castor-oil when required.

To lie in bed, and take rice diet, biscuit, and barley-water.

13th. Pain relieved. Feels much better, but weak. Tongue clean. Pulse 85, feeble.

14th. No pain. Bowels costive.

To take half an ounce of castor-oil.

15th. Had much pain in the stomach and bowels, but was much relieved by the castor-oil, which operated freely. Pulse 84, very feeble. Has now no pain or tenderness. Tongue quite clean. Appetite good. Sleeps well.

16th. Feels well, but is feeble. Weakness in her back.

To have at her own request a strengthening plaster to the back.

17th. Is quite well.

19th. Discharged cured.

CASE XLVII.—Pleuritis chronica. Chronic Pleurisy.
23rd September, 1833.

Sarah Smith, weaver, unmarried, aged 19 years, says she was first attacked about three years ago with acute pain in the breast, which prevented her from taking a deep inspiration. This has never entirely left her. Pulse is 100, full. Tongue is dry and furred. She complains of thirst. A slight cough. No appetite. Occasional pain in the legs. Catamenia irregular.

To have twenty leeches applied to the painful part.

To have a blister-plaster put on afterwards.

To take a scruple of the pulvis hydrargyri submuriatis cum jalapâ.

To have low diet.

24th. Feels considerably better. Has much less pain. Bowels were freely moved by the powder.

25th. Says she is free from pain. Cough increased, but easy and loose. Pulse 85, regular and soft. Tongue rather coated. No appetite. Bowels open. Slept better.

26th. Feels pretty well. No pain. Cough rather worse, but loose. Tongue clean. Pulse 100.

To take a mercurial pill night and morning.

27th. Does not feel quite so well to-day. No pain in the side. Is rather sick.

To omit the pills.

℞ Liquoris Morphinae Acetatis m.x.

Misturæ Magnesiæ Sulphatis f̄iij. Miscæ.

Sumatur f̄j. ter quotidie.

28th. Feels worse. Has sickness and vomiting. Bowels not

open since the 26th. Very thirsty. Tongue white. Pulse quick and sharp.

29th. Bowels open in the night. Feels easier. Some pain and throbbing in the head when she rises. Pulse quiet. Tongue nearly clean.

30th. Makes no complaint this morning. No sickness. Bowels regular. Tongue clean. Pulse quiet.

1st October. Is much better. Appetite improved. No pain. Very slight cough.

3rd. Tongue clean. Appetite good. No cough. No pain in the chest. Pulse 84, soft.

4th. Feels well this morning.

7th. Discharged cured.

OBSERVATIONS.

The disease in this instance seems to have been the effect of irregularity in the catamenia. When the catamenia are irregular, the excited state of the uterus on which the catamenia depend, does not always take place at every monthly period, but, in place thereof, there is established either in the lungs, the pleura, the heart, the pericardium or the stomach, a vicarious inflammation or sub-inflammation, as in the present instance. The best treatment is, leeches to the part, mercury, mild purgatives, and low diet.

CASE XLVIII.—Pleuritis chronica. Chronic Pleurisy.

23rd September, 1833.

Mary Ann Mc. Alvine, unmarried, a power-loom-weaver, aged 19 years, has been ill four months. The complaint came on with cough and pain in the breast, which at first was very acute, and has continued with intermissions ever since.

On admission the tongue was dry, and coated. Bad taste.

Appetite deficient. Much thirst. Bowels regular. She has cough and expectoration. The pain is increased on inspiration. The catamenia which had been for some time irregular, have been suppressed for the last three months. Has occasional pains in the lumber region, thighs, and legs. Cannot sleep.

To have twenty leeches to the painful part.

To have a blister-plaster afterwards.

To take one grain of calomel in the form of pill four times a day.

To have rice diet, biscuits, and barley-water.

To lie in bed.

24th. Feels much better. Has much less pain in the side since the leeches. Pulse 100, soft. Tongue moist.

25th. Tongue still furred, and appetite bad. Bowels open. No pain in the side or legs. Has a loose cough. Pulse 100, soft. Slept better.

26th. Has had much griping in the belly during the night. Bowels not open. Feels thirsty. Tongue rather dry. No pain in the side. A little pain in the right leg. Cough increased. Pulse 100, small.

27th. Had pain in the bowels during the night. Pain in the legs. None in the chest. Cough better. Skin moist. Less thirst. Pulse 120.

To omit the pills.

To take of the *Mistura Magnesiæ Sulphatis* f̄jss. four times a day.

28th. Pain in the side quite subsided; has some in her legs. Short moist cough. Pulse quick, rather full.

29th. No complaint. Is much better.

30th. Still improving.

Allowed to sit up.

1st October. Nearly well. No pain. Appetite good.

2nd. Complains of some pain in her legs; otherwise well.

3rd. Feels well this morning. No complaint.

4th. No complaint.

7th. Discharged cured.

OBSERVATIONS.

This case so nearly resembles the last, that of Sarah Smith, both in its causes, symptoms, and treatment, that I have nothing to add to the remarks I have already made.

SCARLET FEVER.

CASE XLIX.—Scarlatina anginosa. Bateman.

Thursday, 20th June, 1833.

Mary Ann Ouseley, a girl, in her 10th year, working in a cotton-factory, complained this morning of severe head-ache, sore throat, considerable thirst, with loss of appetite. Bowels have been open to-day.

To go to the House of Recovery.

Friday, 21st. Eruption on the skin, having a mottled pale red and white appearance. Skin hot and dry. Much head-ache. Tongue coated with white fur; tonsils much inflamed, with two small ulcers upon them. Pulse 140, small.

Six leeches to the throat.

Pulveris Rhei salini gr.xij. statim.

℞ Spiritûs Aetheris nitrici.

Vini Ipecacuanhæ, āā, f̄ij.

Misturæ Ammonię Acetatis f̄jvss. Misce.

Sumatur f̄j. quartâ quâque horâ.

Saturday morning, 22nd. Twice purged during the night. Has slept well. Head-ache gone. Throat much less inflamed. Tongue clean at the tip and edges. Pulse very rapid. Great tenderness of the right iliac region, upon pressure.

Six leeches to the right iliac region.

Saturday evening. Slight tenderness of the abdomen remains. No thirst. Tongue much less furred, but red. Throat improving. Skin continues hot and dry.

Pediluvium in the evening.

Sunday, 23rd. Bowels purged twice during the night. Says she feels quite well. No head-ache. No soreness of the throat. No thirst. Tongue clean and moist. Skin cool. Eruption very pale, disappearing. Pulse 96.

Monday, 24th. Eruption quite gone. No complaint made by the patient.

Wednesday, 26th. Continues well. No desquamation of the cuticle, nor dropsical swelling.

OBSERVATIONS.

This case of Scarlet Fever, although accompanied with sore throat, appears to have been nearly as simple as scarlatina simplex. This affection in reality requires very little treatment. Cleanliness; pure, cool air; cold water, both externally and internally; with mild purgatives, are in fact all that are necessary. You will be so kind as to observe that the eruption came out in this case, as it usually does, on the second day of the fever, and not on the fourth, as stated by Cullen; it also terminated on the fifth day, and not, as Cullen says, on the seventh. You will also observe there was no desquamation of the cuticle, nor any dropsical swelling. I may just mention to you that I once attended a family where there were several children with the whooping-cough. The scarlet-fever entered the family and successively attacked every individual except one adult. But, as each individual of the children was successively

attacked by the scarlet-fever, the hooping-cough was invariably suspended; but merely until the scarlet-fever had run its course; after which the hooping-cough returned, and went on as before.

CASE L.—Scarlatina anginosa. Bateman.

4th September, 1833.

Lorenzo Chiocchi, a school-boy, in the 9th year of his age, has been ill four days.

When admitted he could give no distinct account of his first symptoms. When he came in, the skin was red, the eyes a little suffused, the throat rather sore, tongue red, dry, and coated. He had great thirst and restlessness; his bowels were costive; and he had pain of the abdomen on pressure.

To have four leeches to the epigastrium.

To take two drachms of castor-oil immediately.

To have for diet oatmeal-gruel and milk.

To be kept very cool.

5th. Tongue cleaner, but red and dry. Throat sore. Skin redder than yesterday. Bowels purged in the night. Much pain of the abdomen on pressure.

To have six leeches to the abdomen.

Vesperè. Much less pain of the abdomen. Tongue dry and red. Skin hot. Pulse frequent. Much delirium. Complains of pain in the head.

To have six leeches to the temples.

6th. Seems much better. No head-ache. Skin hot. Bowels purged in the night.

7th. Slept well. No pain. Eruption nearly gone. Tongue clean.

8th. Seems quite well. Tongue slightly red, but moist. Appetite good. No complaint made. Sat up, and had broth.

10th. Discharged cured.

CASE LI.—Scarlatina simplex. Bateman.
4th September, 1833.

Cattarina Chiocchi, in the 10th year of her age, works in a silk-mill, has been ill two days, this being the second day of her illness. She had pain in the head and back, lost her appetite, had a bitter taste in her mouth.

When admitted she had some head-ache, much thirst, no appetite, slight pain of the abdomen on pressure. Bowels confined.

To have two drachms of castor-oil immediately.

To have for diet water-gruel only.

5th. Skin very red. No sore throat. Bowels moved by the oil. No head-ache. Pulse quick. Tongue cleaner, still much furred.

6th. Skin as yesterday. Tongue clean. Appetite returning. No head-ache or other pain.

7th. Eruption paler.

To have broth.

8th. No eruption on the skin. Seems quite well.

To sit up.

9th. Remains well. Appetite good.

10th. Discharged cured.

OBSERVATIONS.

In this case the eruption appeared on the third day, and disappeared on the sixth day of the disease. The case was exceedingly simple, and accordingly you will observe that I ordered no medicine except a little castor-oil. And, in fact, no medicine was required. Coolness, fresh air, and cleanliness are all that are in general required in scarlet fever.

CASE LII.—Scarlatina anginosa. Bateman.

10th September, 1833.

Alfred Speightman, a lad in the 16th year of his age, works in a cotton-factory, says he felt ill five days ago, when he had shivering and vomiting with the usual symptoms of fever.

When admitted, the skin was covered with a scarlet eruption, which he said had existed for three days; he had slight head-ache, sore throat, tongue red and clean, bowels freely open from medicine previously administered.

To have for diet oatmeal-gruel and milk.

11th. Skin and tongue as before. Head-ache gone. Throat better. No pain of abdomen on pressure.

12th. Eruption paler. Tongue clean; not so red; papillæ elevated. Bowels open.

13th. Eruption gone. Appears well.

To have rice diet.

14th. Continues quite well.

15th. Cured.

OBSERVATIONS.

The eruption in this case came out on the third day of the disease, and disappeared on the eighth. You will observe that I ordered no medicine; nothing being required but low diet, great coolness, fresh air, and cleanliness.

CASE LIII.—Scarlatina anginosa. Bateman.

27th September, 1833.

Helen Armstrong, a girl, in the 14th year of her age, works in a cotton-factory, began to feel ill yesterday, had much pain in the head and back, throat sore, bowels confined.

When admitted, the skin was hot; she had much head-ache; great thirst; tongue was furred and red at the tip and edges.

To have half an ounce of castor-oil immediately.

To have for diet oatmeal-gruel.

28th. Skin hot and dry. Tongue red; papillæ elevated. Has vomited twice. Bowels not open.

To take twelve grains of the Pulvis Hydrargyri Submuriatis cum Rheo.

Vesperè. Bowels not open. Complains much of her throat. The fauces and tonsils vividly red. A scarlet eruption appears on the arms and legs; none perceptible on the body.

To have eight leeches to the throat.

To repeat the powder.

29th. Bowels freely purged. Much thirst. Tongue red but clean. Throat much better. Eruption does not appear to have advanced.

30th. Feels much better. Skin cool. Less thirst. Bowels open.

1st October. Makes no complaint. Tongue clean, and moist, but red. Skin cool; all the eruption gone. Appetite good.

To sit up, and to have common diet.

3rd. Remains quite well.

4th. Feels quite strong; appetite very good; bowels regular.

5th. Discharged cured.

OBSERVATIONS.

The eruption in this case appeared on the third day, and disappeared on the sixth. You will please, gentlemen, to notice the vomiting, which I consider a proof that this disease, like the small pox, and many other fevers commences with an inflammatory attack of the stomach.

CASE LIV.—Scarlatina anginosa. Bateman.

27th September, 1833.

Isaac Armstrong, a boy, aged 12 years, works in a cotton-factory, began to feel ill yesterday, with head-ache, sore throat, and much purging.

When admitted, had slight head-ache, and pain in the limbs, great thirst, skin hot and dry, with an eruption of a scarlet colour on the arms.

To have for diet oatmeal-gruel.

28th. Remains much the same as yesterday. Throat painful. Much redness of the tonsils. Tongue clean but red. Bowels not open since his admission.

To have six leeches to his throat.

To take three drachms of castor-oil immediately.

29th. Bowels freely open. Tongue not so red. No pain of abdomen on pressure. Head-ache remains. Throat better.

To have eight leeches to the temples.

30th. Tongue red, but clean. No head-ache. No pain of the abdomen. Skin cool. Eruption not perceptible. Bowels open twice.

1st October. Remains quite well.

To sit up, and have common diet.

3rd. Feels quite well.

5th. Discharged cured.

OBSERVATIONS.

In this case the eruption came out on the second day, and disappeared on the fifth.

CASE LV.—Scarlatina anginosa. Bateman. Scarlet Fever.

19th November, 1833.

Charles Parker, aged 10 years, and works in a silk-factory, has been ill eight days. Says he began to feel unwell about a week

ago. He felt very cold, and had shivering followed by pain in the head and sore throat, with aching of the limbs. He became ill on the 12th, but the eruption did not make its appearance until the 17th.

When admitted, he complained of sore throat and pain in the head, the skin was covered with a very vivid scarlet eruption. Tongue moist, but furred. Bowels costive. Pulse 90, and small.

To have four leeches to his throat.

To take two drachms of castor-oil immediately.

20th. Throat better. No head-ache. Skin hot. Eruption as yesterday. Bowels not yet open.

To repeat the castor-oil.

21st. Bowels freely open. Tongue nearly clean. Has no pain. Throat quite well.

22nd. Tongue clean. Eruption nearly gone. Feels quite well.

25th. Glands at the left side of the neck much swelled and inflamed. Tongue white and coated. Skin hot. Pulse quick. Head-ache.

To have four leeches to the throat.

To have poultices afterwards.

To take two drachms of castor-oil immediately.

26th. Throat is easier, not so much swelled. Bowels open; stools clay-coloured. Tongue white.

To take twice a day four grains of the Pulvis Hydrargyri Submuriatis cum Saccharo.

28th. Feels much better. Throat nearly well. Tongue clean. Bowels regular. No thirst.

30th. Tongue clean and moist. Throat quite well. Bowels open.

To sit up and have common diet.

2nd December. Continues quite well.

6th. Discharged cured.

OBSERVATIONS.

The singularity in this case was that the eruption did not appear until the sixth day of the fever. I expected this would prove a very puzzling, troublesome, and, perhaps, fatal case; from the very fatal character of the scarlet fever prevailing at the time in the country. But it yielded nearly as readily as any case I have had under my care. To what we are to attribute the fatality which has been said to attend scarlet fever this year, I am at a loss to say, not having had one case that proved fatal. If practitioners would but recollect that fresh air, and cleanliness, coolness, low diet, mild purgatives, and leeches when necessary, are the ground work of the treatment of scarlet fever, they would not, I think, lose so many patients. But there is no saying. There may be something in the disease, which I am not acquainted with, and something in the fatal cases different from any thing it has been my lot to witness.

AGUE.

CASE LVI.—Tertiana. Anetus Tertianus. Tertian Ague.
19th August, 1833.

Edward Preston, married, a weaver, aged 49 years, says he first caught an ague about thirty years ago, at Surat, in the East Indies, where there are many bogs or jungles, and where ague is very

prevalent. Says the fit at first came on about twelve o'clock every day, but since his return to England the time of its accession is very various; it being sometimes a quotidian, sometimes a tertian, sometimes a quartan, and it generally attacks him every autumn.

For some time previously to his admission the disease has been a regular tertian, coming on about three or four o'clock of every alternate day. During the interval he has a dull pain in the head. Tongue is much furred. Appetite indifferent. Bowels costive. He has restless nights, dullness of hearing, and is very feeble. Pulse 88, regular.

To have a blister-plaster applied to the abdomen, and when the cuticle has risen to have the vesicated part dressed with ten grains of the sulphate of quinine daily.

20th. Passed a much better night. Tongue still furred, and he feels head-ache. Bowels have been once moved. Yesterday afternoon, the expected time of the accession of a fit was only marked by extreme cold, which went off gradually, and was not succeeded by heat and sweating. The last fit, an imperfect one, was on Saturday.

21st. Has had no shaking or other symptom of a fit. He feels only feeble. No pain in the head. Pulse 90, weak. Tongue coated. Appetite better.

22nd. Has had no unfavourable symptom. Feels quite well this morning, but rather feeble. Bowels have been freely moved by a couple of ounces of the compound senna mixture.

23rd. Had an imperfect fit yesterday afternoon at six; only the shaking was present, which lasted about half an hour, and went off gradually. Feels pretty well this morning. Tongue is furred, but the appetite is not impaired. Bowels regular. Pulse 80, feeble. No head-ache.

24th. Had an imperfect fit this morning at nine o'clock; a mere shivering which subsided quickly. General health is good.

25th. Feels very well to-day.

26th. Has had no indication of a fit.

26th. Discharged at his own request.

OBSERVATIONS.

In the first place, gentlemen, I have to remark to you, that in the memory of the oldest medical practitioner living, and for as far back as tradition can reach, there never was an ague caught in Manchester nor within a considerable number of miles of it. This fact is rather remarkable, as you know we lie upon four rivers, and one or two considerable brooks, besides being surrounded and traversed by canals innumerable. But, do we never see the ague then in Manchester? O, yes; we see plenty of it. The poor Irish, who go in the autumn of the year to assist at the harvest in Holderness, Lincolnshire, Cambridgeshire, Essex, and other places, come, many of them, to winter in Manchester, and the first east wind that blows in February or March, brings out the first paroxysm of that ague which they had caught in the autumn, but which had lain undeveloped and unsuspected in the system until aroused by such weather as we generally have in February and March.

You know, gentlemen, that the specific for the ague is the cinchona-bark or the sulphate of quinine. They act by producing a glow of heat in the system which counteracts the periodic cold which is the precursor of a regular fit of which the cold is the first stage, and which cold stage is followed by a hot stage and a sweating stage. The cinchona-bark seldom fails. It has, however, when given internally certain inconveniencies, upon which I shall not

particularly enter at present, that render it desirable to obtain its good effects, if possible, without the bad effects which sometimes arise when it is taken into the stomach.

This is accomplished by the *endermic method*, which is what I have employed with this patient. The endermic method consists in applying medicines to the skin, instead of introducing them into the stomach. The skin is usually first deprived of the cuticle by means of a blister. The medicine, absorbed by the surface with which it is thus brought into contact, exerts its proper action on the system, as if it had been first applied to the digestive system.

This method was introduced in France in the year 1823, by M. Lembert and M. Lesieur. I have frequently tried it in this house, and always with more or less of success.

But, indeed, it did not require much exertion of the reasoning faculties to hit upon this method: it was merely extending what was before well known. For instance, it was known that aloes in powder applied to a vesicated surface, produces alvine evacuations; that the leaf of tobacco applied to the skin with the cuticle unbroken, produces sickness and vomiting; that opium or laudanum rubbed into the skin produces sleep; and that mercury introduced through the skin by means of friction produces salivation.

Yet, notwithstanding these facts, there still remains much credit due to M.M. Lembert and Lesieur, for

their exertions respecting this method, which is useful in all cases where the stomach will not bear the required medicines.

For the cases in which it is most particularly required, and for the details of the method, I must refer you to the work of the authors, the "*Essai sur la Methode endermique.*"

TURGESCEENCE OF THE SPLEEN.

CASE LVII.—Parabysma splenicum. Dr. Good. Physconia splenica. Cullen. Turgescence of the spleen.

8th July, 1833.

James Hibbert, calico-printer, a widower, aged 39, had a bilious attack eighteen months ago, induced by hard drinking. Has perceived a tumour on his left side, and general swelling of his belly ever since. His bowels have been much relaxed. Has had much bearing down. Stools are light-coloured. Has had some little cough and difficulty of breathing with occasional pain on inspiration. Has much sweating in the night. Urine is scanty and muddy. Appetite is generally very good. Has much debility. The tumour in the left hypochondrium is very large and hard, but not tender on pressure. Some fluctuation is perceptible in the cavity of the abdomen. Legs are not swelled. Countenance is pale and anxious. Pulse small and feeble.

℞ Hydrargyri cum Cretâ gr.v.

Confectionis Opii gr.x. Misce.

Fiat bolus quater quotidie sumendus.

9th. Feels rather better. Tumour unchanged. Bowels still relaxed. Has no bearing down. Feels occasionally faint.

10th. Tumour rather softer. Bowels quiet. Stools natural.

11th. Much the same.

To omit the bolus.

To rub in on the left side twice a day, about a drachm of the Unguentum Potassæ Hydriodatis.

℞ Tincturæ Iodinæ fʒss.

Misturæ Camphoræ fʒvi. Misce.

Sumatur fʒjss. quater quotidie.

12th. Tumour rather softer. Appetite good. Tongue cleaner. Bowels regular. Urine scanty.

13th. Bowels loose. No tenesmus or pain. Tongue clean. Appetite good. Pulse still weak. Tumour unchanged.

14th. Bowels much relaxed. Stools light-coloured. Urine scanty. Feels occasional fits of faintness. Tongue clean. Appetite good.

To take the bolusses again as ordered on the 8th.

15th. Feels better. Bowels much relieved by the bolusses. Tongue clean. Appetite continues good. Tumour rather softer.

16th. Bowels quiet. Stools natural. Tumour rather less and somewhat softer.

To take rice diet, biscuit, and barley-water.

17th. Is much the same.

To have electric sparks sent into the tumour every morning.

18th. Tumour seems somewhat less. Bowels have not been purged since he resumed the bolus. Tongue clean. Appetite good. Pulse regular but feeble.

21st. Bowels again relaxed, with a little tenesmus. Swelling rather increased. Tumour sore. Urine scanty. Much oppressed in breathing. Pulse full and regular.

24th. Continues relaxed in his bowels. Feels attacks of faintness. Abdomen much tumefied. Urine very scanty.

To increase the Tincture of Iodine to forty minims in the twenty-four hours.

26th. Faintness comes on very frequently. He thinks the medicine makes him feel sick. Bowels continue relaxed. Stools dark-coloured. Urine very scanty. Tongue clean. Appetite

bad. Pulse weak and intermittent. Breathing oppressed. No cough nor head-ache. Tumour unchanged.

27th. Not quite so well as before. Great thirst. Appetite bad.

28th. Feels weaker. Belly more tumid. Bowels still purged. Complains of tenderness of the abdomen. Sleeps well.

31st. Tumour rather larger. Urine scanty. Bowels less relaxed. Tongue clean. Pulse 80, regular.

2nd August. Complains of the tumour being sore. Appetite worse. Feels weaker.

3rd. Mouth sore.

To omit the bolusses.

4th. Feels cold and weak. Bowels still purged. Urine very scanty. Tumour sore, and no smaller. Mouth very sore.

℞ Acidi acetici fortioris fʒvi.

Aquæ puræ fʒvii. Misc.

Fiat lotio pro ore.

5th. Not much improved. Tumour rather less and softer; but belly swelled. Urine scanty. Feels weak, and appetite fails him. Purging continues.

6th. Feels much the same. Pulse 84, wiry. Tongue furred. Mouth better.

7th. Pulse 96, feeble. Purging continues.

To add five minims of laudanum to each dose of the iodine mixture.

8th. Has less purging. Pulse 80, feeble.

9th. No material alteration. He thinks the tumour rather softer, and somewhat less than it was.

10th. Feels no change, except that he becomes gradually weaker.

11th. Much the same.

12th. Discharged at his own request.

OBSERVATIONS.

This disease is called by Cullen, *physconia*, a very improper designation, as we may see from the

etymology of the word, which is from *φυσάω*, to inflate. Cullen's definition of physconia is as follows; *Tumor quandam abdominis partem potissimum occupans, paulatim crescens, nec sonora, nec fluctuans*. In this definition you cannot fail to be struck with the error as to grammatical accuracy in the word *sonora*; but I suppose Cullen had begun the sentence with another word of a different gender, as *intumescencia*, which he had afterwards altered to *tumor*, without thinking of the necessary alteration in the adjective.

Dr. John Mason Good calls the disease parabysma, "*id quod magnis sarcinis infarcitur*," from *παραβύω*, "*malè coacervo, or infarcio*;" which is certainly a better term than physconia.

You have seen in this man, gentlemen, one of the dreadful effects of intemperance in the use of fermented liquors. We know nothing of the use of the spleen, and, therefore, I am unable to form even a theory of the manner in which fermented liquors act in producing this affection; but certain it is that they do produce it. They have also produced in him a gastro-enteritis, as is shown by the continued and obstinate diarrhea under which he labours.

If this man had not been affected with gastro-enteritis, I think he might have been cured by a liberal use either of the real Cheltenham water or of an imitation of it. We come near enough in the imitation if we dissolve two grains of sulphate of iron, four drachms of sulphate of magnesia, and four

drachms of sulphate of soda, in a pint of water, and add twenty or thirty minims of tincture of iodine; this quantity to be taken every twenty-four hours, using reasonable exercise in the mean time. However, I was obliged to content myself with giving him tincture of iodine and laudanum, for his principal complaint, and the hydrargyrum cum cretâ with opiate confection for his diarrhea and some affection of the liver, under which he evidently laboured.

The patient was very little benefited, and, if I must speak my candid opinion, I am inclined to think that his complaints will never be removed.

RHEUMATISM.

Rheumatismus. Arthritis. Arthrosia. Myositis. Myitis.
Arthrodynia. Rheumatism.

There seem to be no fewer than five different affections, all comprised under the term Rheumatism. The first appears to consist in a peculiar, specific, inflammation of the muscular fibres, or of the cellular membrane, or of the muscular aponeuroses, of one or more parts of the body. It is accompanied with much fever; excessive pain upon motion; a tongue covered with a thick, white or buffy coat; a moist,

clammy skin; urine high-coloured and depositing a rose-coloured sediment; a full, round, and bounding pulse: the blood drawn is coriaceous, and, for the most part, what is called cupped.

This kind of rheumatism, which is commonly known by the name of rheumatic fever, should be treated by means of copious and repeated bleedings. Large doses of calomel should be given, first as a purgative, next in order to affect the system. Purgatives, salts and senna, for instance, should then be administered. Diaphoretics and sedatives, the best of which is the pulvis ipecacuanhæ compositus, or Dover's powder, should follow the purgatives. Lastly, large doses of the cinchona or Peruvian bark, or otherwise of its preparation, the sulphate of quinine, may be exhibited. Low diet must be observed throughout.

The second way in which what is usually styled rheumatism appears, is in the form of arteritis or phlebitis, inflammation of the arteries or veins. I must candidly admit that I know of no precise diagnostic symptoms whereby to distinguish this affection from the rheumatic fever just described. Perhaps, however, the pain is greater and more circumscribed, whilst, at the same time, the febrile symptoms are less intense. This kind of rheumatism should be treated with bleedings from the arm, local bleedings by means of leeches, calomel, salts and senna, Dover's powder in large doses, with low diet.

The third form in which this disease appears, is an acute, hot, and highly painful affection of the joints, as the elbows, the wrists, the knees, the ankles, accompanied with a moderate degree of fever. This is generally called acute rheumatism, it must be treated by general bleedings, local bleedings with leeches frequently repeated, calomel, purgatives, Dover's powder, the hot bath, cinchona bark, or sulphate of quinine, low diet at first, generous diet afterwards. The *colchicum autumnale* or meadow-saffron is very much recommended in this affection, but I confess I have no great faith in its effects.

The fourth form of rheumatism is called chronic rheumatism, and is exactly the same as the third, except that all its symptoms are chronic, and there is little or no fever. It must be treated by leeches repeatedly applied to the painful joints, hot baths, blisters, calomel, stimulating liniments, cinchona-bark, ammonia internally, generous diet, the affusion of cold water on the painful joints, or lastly, frequent bathing in the Buxton-baths.

The last is an almost never-failing remedy; and, if I am asked how it operates, I answer, I do not know. Some substance, as yet undiscovered by chemistry, exists, as I conjecture, in Buxton-water, on which probably its efficacy depends. The beneficial effects of Cheltenham-water in enlargements of the liver and spleen were acknowledged many years before the very existence of iodine in nature

was known. Now, it is understood that iodine exists in Cheltenham-water in the proportion of one grain in ten gallons. "It seems not improbable," says Dr. Daubeny, Professor of Chemistry, at Oxford,* "that very minute portions of certain principles may act upon the system with an energy commensurate, not to their own quantity, but to the change their presence occasions in the properties of the more inert ingredients that accompany them.—In this manner we may explain the powerfully tonic effects of certain springs containing a very minute impregnation of iron; the cures effected by waters, such as those of Loueche or Gastein, which appear to approach as nearly as possible to absolute purity; and the efficacy in glandular disorders attributed to certain others, in which a minute proportion of iodine or bromine has been detected.—In a Memoir read before the Royal Society, on the saline and purgative springs of this country, in which I stated the proportions of iodine and bromine present in each, I expressed myself as being sceptical with regard to any medicinal agency, that could be exerted by so small a quantity, as one grain of iodine diffused through ten gallons of water, the largest quantity in which I had ever detected it. The considerations above-stated now induce me to attach more impor-

* An Introduction to the Atomic Theory, by Charles Daubeny, M.D. F.R.S. Professor of Chemistry in the University of Oxford. Page 81.

tance to the circumstance of its presence, for it is just as possible, *à priori*, that this quantity of iodine should infuse new properties into the salts which accompany it, and cause them to act in a different manner upon the system, as that less than a millionth part of potassium should create so entire a change in the relations of a mass of mercury to electricity. Whether the waters of Cheltenham or Leamington affect the constitution differently from solutions of Glauber-salt of similar strength, must be decided by the experience of those on the spot; but granting this to be the case, and there is not wanting testimony in favour of such an opinion, the discovery of these new principles in several of them may serve to explain their superiority.”—I leave it to you, gentlemen, to decide, each in his own mind, how far these considerations apply to the undoubted efficacy of the Buxton-baths in cases of chronic rheumatism.

The fifth form of what is called rheumatism, or chronic rheumatism, appears principally in the hip, and it is then known by the name of *sciatica*. It is accompanied with intense pain, little or no fever, great numbness, coldness, paralysis, and wasting of the muscles supplied by the ischiatic nerve, with lameness and halting of the affected side. It is well described by Shakspeare;

“————— thou, *cold sciatica*,
Cripple our senators, that their limbs may *halt*
As *lamely* as their manners!”*

* Timon of Athens. Act 4. Scene 1.

This affection sometimes attacks other parts besides the hip, as the face, the foot, and the mamma. It appears to me that it is essentially an inflammation of the membrane which invests the nerve of the part affected. This is shown by the intense pain, the sudden paralysis, so that a person walking in the street shall fall down as if in a fit; from which circumstance, no doubt, it has received the name of paralytic rheumatism, or rheumatic paralysis. The coldness, numbness, and wasting of the muscles, with the almost total absence of fever, altogether lead to the opinion that it is more an affection of the nerves than of any other parts. When it exists in the face it very much resembles the *tic douloureux*; or, for any thing I know to the contrary, the *tic douloureux* may be the same disease; which I think extremely likely. It should be treated, I apprehend, by means of local bleedings by cupping glasses or leeches, by blisters, by mercury, especially calomel, so as to affect the mouth, by sedatives as opium, extract of hyoscyamus, or Dover's powder. A very good combination is, one grain of calomel and five grains of extract of hyoscyamus, four times a day. Usually, as soon as the mouth is affected with the mercury, or even sooner, the disease yields as if by a miracle.

There are two affections which it is my duty to caution you against mistaking for rheumatism. The first is that inflammation of the periosteum which we find in secondary syphilis, and which gives rise to

those syphilitic pains which, as you must all know, are so frequently mistaken for rheumatism. The second affection is that pain of the shoulders and arms, of the back and loins, of the hips, thighs, knees, legs, feet, and toes, which I have mentioned in former lectures, as being symptomatic of gastro-enteritis, and as being very often mistaken by even elderly practitioners, and as regularly treated by them, for rheumatism, to the great injury of the patients, and the aggravation of their real complaints.

CASE LVIII.—Rheumatismus chronicus. Arthrosia chronica.
Chronic Rheumatism.

20th May, 1833.

Charles Ratcliffe, a tailor, unmarried, aged 28 years, about six months ago first felt pain and rigidity in his wrists and knuckles after working, as he thinks, in a draught of air.

When admitted he had much pain, swelling, and stiffness in his knees, knuckles, and wrists, which are somewhat relieved by warmth. General health pretty good. Has never had syphilis.

To go into the sulphur-bath every morning.

To take three times a day one ounce of the *Mistura Guaiaci ammoniata*.

To rub the affected parts with the *Linimentum Camphoræ* twice a day.

31st. To omit the sulphur-bath and the mixture.

℞ *Vini Colchici* fʒiv.

Misturæ Ammoniæ Acetatis fʒviiss. *Misce.*

Sumatur fʒj. *ter quotidie.*

6th June. Knees much tumefied and very painful.

To have six leeches applied to each knee.

8th. To omit the mixture.

℞ Hydrargyri Submuriatis gr.j.

Extracti Hyoseyami gr.iv. Misc.

Fiat pilula quater quotidie sumenda.

11th. Knees less swelled and painful since the application of the leeches. Skin moist. Appetite good. Tongue clean. No thirst. Wrists still painful, stiff, and swollen.

14th. Mouth affected by the mercury.

15th. Mouth very sore.

To omit the pills.

To take two ounces of the *Mistura Sennæ composita* immediately, and one ounce four times a day.

16th. Has been much purged.

23rd. Complains of nothing but a slight pain in one wrist, which is slightly swelled and rigid.

24th. To go into the hot bath every night.

25th. The bath produced a copious perspiration, but he does not think it relieved him. Feels the wrists and knees rather more swelled and painful.

26th. Wrists and knees still swelled, and rather painful. Mouth nearly well.

To resume the pills.

To continue the hot bath.

27th. Thinks himself rather better. Knees less swelled. General health good.

30th. Pains were worse in the night. Joints much swelled and very stiff. Mouth very sore.

1st July. Had somewhat less pain in the night.

8th. Feels rather better. Joints very weak.

13th. To have electric sparks sent into the knees, the wrists, and the hands.

14th. Felt relief in one wrist from the sparks of electricity. Knees much the same.

17th. Pain somewhat less. Knees stronger. Can walk better.

To rub the affected parts twice a day with the *Linimentum Hydrargyri*.

19th. Complains of much pain this morning. The swelling and stiffness not abated.

21st. Right wrist very painful and much swelled.

To have twelve leeches to the right wrist.

22nd. Feels easier this morning. Wrist less painful since the application of leeches. Knees stronger and less stiff.

24th. Is but little improved.

To omit every thing except the liniment.

R Cinchona lancifoliæ corticis contriti ʒj.

Spiritûs Ammoniæ aromatici fʒiv.

Aquæ puræ fʒviiss. Misc.

Sumatur fʒij. quater quotidie.

31st. Feels his knees better and stronger; but his wrists still remain swelled, stiff, and painful.

1st August. Bowels rather costive.

To take two ounces of the Mistura Sennæ composita.

2nd. Bowels open, but he thinks the pains are rather worse.

6th. Feels but little improvement. Thinks he feels better when walking about.

15th. Ankles much swelled and very painful.

To have ten leeches to each ankle.

16th. Ankles less painful. Knees very painful.

To have ten leeches to each knee.

18th. Has still considerable pain in the knees.

To have ten leeches to each knee.

23rd. Has much pain in the knees.

To have eight leeches to each knee.

27th. Knees are better. He can walk about. His wrists are swelled and painful; also the right elbow.

2nd September. Wrists swelled and painful.

To have six leeches to each wrist.

5th. Has not much pain, but feebleness and rigidity of the limbs still continue.

To have ten leeches to the right wrist.

To have the hot bath every night.

R. Olei Terebinthinæ rectificati f̄3iv.

Tincturæ Opii f̄3ss.

Theriacæ f̄3j.

Mucilaginis Acaciæ f̄3ij.

Aquæ Menthæ viridis f̄3iv.

Aquæ puræ ad f̄3viii. faciendas.

Sumantur f̄3ij. quater quotidie.

To lie in bed, and have rice diet.

9th. Has no pain in the knees or other joints, except the right wrist, which is still very sore.

12th. Knees were very painful yesterday. He is rather better this morning.

16th. Discharged improved, and sent to Buxton.

OBSERVATIONS.

All the usual remedies for chronic rheumatism were tried with this man. The sulphur-bath, the ammoniated mixture of guaiacum, the colchicum, calomel to salivation, the hot bath, electricity, cinchona-bark with ammonia in very large doses, leeches, perseveringly repeated, friction with the camphor-liniment, and the mercurial-ointment, and lastly the oil of turpentine internally, were all employed, and I am sorry to say with only moderate success. Having tried him with all these plans for about four months, I have at last sent him to Buxton, where I have very little doubt he will soon recover.

CASE LIX.—Rheumatismus chronicus. Rheumatismus vulgaris. Arthrosia chronica. Chronic Rheumatism.

1st July, 1833.

Robert Isherwood, a lad, aged 17 years, works in a cotton-

factory, has been ill thirteen weeks. Got very wet in the snow, and afterwards felt pain in the ankles, legs, and knees, rendering him quite unable to support himself. He has a little pain in his shoulders. His pain is better when he is warm in bed.

R Hydrargyri Submuriatis gr.j.

Extracti Hyoseyami gr.iv. Misce.

Fiat pilula quater in die sumenda.

2nd. Still cannot use his limbs.

3rd. Can use his legs a little better.

4th. Has more use of his legs. No pain.

8th. Is very much better. Can now walk without his crutches.

10th. Is better, but one of his ankles is rather swelled and painful.

To have six leeches to his ankle.

16th. Ankles and feet still swelled, stiff, and painful, but not considerably so.

To have his feet well steamed twice a day.

17th. Omit the pills.

23rd. To have the shower bath every morning.

29th. Discharged quite well.

OBSERVATIONS.

I have nothing to say about this case, except that it exhibits the good effects of small doses of calomel in chronic rheumatism. The lad came into the house with a pair of crutches, but on the seventh day he cast them aside. You will be pleased to recollect that he had been ill for thirteen weeks previously to his admission.

CASE LX.—Rheumatismus chronicus. Arthrosia chronica.
Chronic Rheumatism.

8th October, 1833.

Robert Isherwood, a lad, in the 17th year of his age, working

in a cotton-factory, was discharged from the Infirmary cured of the same complaint as he has at present, about the latter end of last July. He says that on returning to his work in the factory he caught cold which induced a recurrence of the complaint. His general health is good ; his legs only are affected ; he has occasional pain in them, and is unable to support himself upon them without the aid of crutches.

℞ Hydrargyri Submuriatis gr.j.

Extracti Hyoseyami gr.v. Misce.

Fiat pilula quater quotidie sumenda.

To go into the sulphur-bath every morning.

9th. Has no pain in the legs this morning ; but debility and stiffness continue.

10th. Is better. No pain ; but cannot walk.

12th. Perspires freely after the bath.

14th. No pain. Can walk without crutches.

18th. Nearly quite well.

20th. To omit the pills and the bath.

25th. Discharged cured.

CASE LXI.—Rheumatismus acutus. Arthrosia acuta. Acute Rheumatism.

5th August, 1833.

William Douglas, a porter, married, aged 33 years, says he has been ill a week. He thinks he caught cold, which brought on acute pains in his shoulders and left leg, extending to the knee, afterwards affecting his right leg and knee, and then his loins, and rendering him incapable of walking or standing.

On his admission he complained of pain in the above-mentioned parts, and in his arms and wrists, which latter were swelled and rigid. Tongue coated with a brownish fur ; bad taste in his mouth ; no appetite. Bowels have been loose, are now regular. Urine scanty and high-coloured. Pulse 84. Skin moderately

warm. No sweating. Feels better when warm in bed. Very little swelling of the joints.

To lie in bed.

℞ Hydrargyri cum Cretâ gr.v.

Confectionis aromaticæ gr.x.

Fiat bolus quater quotidie sumendus.

7th. Slept better, but pains not relieved. Tongue much furred. Bowels confined. Skin hot. Much thirst. Pulse 84.

To omit the bolusses.

℞ Hydrargyri Submuriatis gr.j.

Extracti Hyoseyami gr.iv. Miscæ.

Fiat pilula quater quotidie sumenda.

8th. Bowels freely opened. Pulse 80 and full. Tongue cleaner. Appetite improved. Pains not relieved. Cannot sleep at night.

To take the following draught every evening.

℞ Liquoris Morphinæ Acetatis m.v.

Misturæ Camphoræ f̄ij. Miscæ.

9th. Feels rather better this morning. Has less pain in the legs, but cannot sleep.

Increase the quantity of the Liquor Morphinæ Acetatis to seven minims.

10th. Pains not relieved. Bowels rather costive. Urine high-coloured. Pulse 80. Mouth and gums sore from the calomel.

To omit the pills.

℞ Misturæ Cinchonæ f̄vijss.

Spiritûs Ammoniaë aromatici f̄iv. Miscæ.

Sumatur f̄ij. quater quotidie.

To continue the evening draught.

11th. Slept better. Mouth very sore. Pains much relieved. Pulse 90. Urine pale. Tongue cleaner. Appetite improved.

12th. Feels worse. Pains more acute, particularly at night.

Pulse 90. Urine more pale. Bowels regular. Mouth less sore.

13th. Pains not relieved. Sleeps very little. Bowels regular.

Pulse 100, full. Mouth sore.

Venesection to sixteen ounces.

Hot bath every night.

Cinchona mixture and evening draught as before.

14th. Blood slightly coriaceous. Feels rather better. Pains less violent. Slept better. Pulse 90.

15th. Much the same as yesterday. Wrists and arms much better; but knees still swelled and painful. Pulse 88, less full. Tongue cleaner. Bowels open. Urine turbid, but pale.

To have ten leeches to each knee.

16th. Pains much relieved. Slept well. Tongue furred, but appetite better. Pulse 84, soft. Bowels open.

17th. Slept much better. Pulse 92. Tongue clean. Has very little pain except in the hands.

To have twelve leeches applied to each hand.

18th. Is much better. Pains greatly relieved. General health good.

19th. Is quite free from pain. Feels his joints rather stiff. Pulse 84. Tongue clean. Appetite good. Bowels regular. Sleeps well.

20th. Is much the same as yesterday. Has very little pain. Can support himself very well. General health good.

21st. Is still free from pain, but not from the stiffness in the joints. Pulse 76. Is able to walk about.

23rd. No pain. Joints more pliable, and stronger. Is nearly well.

24th. Much pain in his right knee this morning. Is unable to walk.

To have six leeches to his right knee.

25th. The knee is less painful, but the limbs are sore and stiff.

To use the Camphor Liniment morning and night.

26th. Has still some pain in the wrists and shoulder. Knee is much better.

27th. Left shoulder stiff and sore. No pain elsewhere. General health good.

To have six leeches applied to the joint of the left shoulder.

- 28th. Feels very well this morning. No pain whatever. Can walk very well.
- 29th. Quite well.
- 2nd September. Discharged cured.

OBSERVATIONS.

This man's complaint was acute rheumatism. He was cured by calomel given so as to affect his mouth, by venesection, by leeches, by the cinchona-bark, with ammonia, and by the hot bath. The case does not require any particular remark.

CASE LXII.—*Ischias rheumaticum. Arthrosia coxendicis. Chronic Sciatica.*

12th August, 1833.

Thomas Roscoe, a bleacher, unmarried, aged 38 years, says he caught a cold two weeks ago, and has felt pain in his right hip ever since. He cannot support himself on the right leg. He is worse when warm in bed. He feels a numbness and coldness down the right leg. His general health is good.

℞ Hydrargyri Submuriatis gr.j.

Extracti Hyoscyami gr.v.

· Fiat pilula quater quotidie sumenda.

14th. Pain much relieved. Pulse 100, full and round. General health good.

16th. Pain is always worst when he first wakes in the morning: it is better in the middle of the day.

To have sixteen ounces of blood taken from the hip by cupping glasses.

To have a blister applied afterwards.

17th. Has less pain.

19th. Has no coldness down the limb. *

20th. Complains of pain, but much less than when he first came in. General health good.

21st. Had pain in bed, but feels very little this morning.

22nd. Has little or no pain.

23rd. No pain, only some degree of weakness when standing long.

To omit the pills.

26th. Discharged cured.

CASE LXIII.—Rheumatismus acutus. Arthrosia acuta. Acute Rheumatism.

12th August, 1833.

George Sutcliffe, a coachman, married, aged 23 years, says he got very wet about four months ago, since which time he has had acute rheumatic pains in all his limbs, and more particularly in the left side of his thorax, and he is now unable to follow his employment.

The tongue is furred; the appetite bad; he feels much nausea; bowels are costive; pulse 80, sharp and jerking; skin moist. His chief pain is in the left arm, and down the left breast. It is worse when he is warm in bed, and is increased by a deep inspiration. He has a dry and painful cough. Urine is high-coloured. Has much thirst.

To have twelve leeches to the left side immediately.

To have a blister afterwards.

To take a scruple of the Pulvis Hydrargyri Submuriatis cum Jalapâ immediately.

13th. Pain in the breast is less, but it is very acute in the arm, and on the left side of the head. Bowels have been opened. Pulse 84, sharp, and full. Tongue still furred. Much thirst.

Venesection of the arm to twelve ounces.

To take one grain of calomel in a pill four times a day.

14th. The blood was cupped and very coriaceous. Pulse is

92, still sharp. Bowels open. Pain relieved, but is very acute on taking a deep inspiration.

To have twelve leeches on the left side.

15th. Less pain in the side since the leeches. Pulse 92. Tongue clean. Bowels open. Has still a dry, painful cough. Legs and thighs feel painful and occasionally numb.

To have twelve leeches on the left side.

16th. Much better. Pain nearly gone. Pulse 84, soft. Tongue clean. Appetite better.

To take two ounces of the *Mistura Cinchonæ* four times a day.

17th. Pulse 80, full and bounding. Tongue clean. Feels thirsty. Bowels open. Mouth rather sore. Has occasional pain in the back, but not much in the side.

18th. Pulse still full and hard. Has much pain in the side and back.

Venesection in the arm to twelve ounces.

19th. The blood was very coriaceous. Has still considerable pain in the left side. Pulse 90. Tongue rather furred. Bowels open.

To have twelve leeches on the left side.

20th. Continues to feel pain, not confined to any one place, but chiefly affecting the left side of the chest and the shoulder, not increased by inspiration. Has a very troublesome dry cough. Pulse 80, less full. Tongue clean. Appetite good. No thirst. Bowels regular.

21st. Has less pain. Cough urgent and painful. Pulse 90, sharp. Skin hot. Is thirsty. Tongue clean.

22nd. Much better. Pulse 90, feeble. Pains relieved, but not wholly gone. Has still a dry cough.

23rd. No pain. Pulse 90, regular. Tongue clean. Appetite good.

To omit the pills.

26th. Discharged cured.

OBSERVATIONS.

This man was cured by general bleedings, leeches, calomel so as to affect the mouth, and cinchona-bark.

CASE LXIV.—Rheumatismus subacutus. Arthrosia subacuta. Subacute Rheumatism.

12th August, 1833.

Mary Brabdon, a domestic servant, unmarried, aged 22 years, says she caught cold a month ago, which brought on violent pains in all her limbs, so that she was unable to go about her work.

When admitted the pulse was 116, full and round; skin hot; tongue furred and dry; appetite bad; bowels regular. She has head-ache, and cannot sleep. Urine is high-coloured. Catamenia regular, until last month. She has most pain in the ankles, knees, arms, and wrists, which latter are swelled and stiff. She feels worse when warm in bed.

℞ Hydrargyri Submuriatis gr.j.

Extracti Hyoseyami gr.iv. Misc.

Fiat pilula quater quotidie sumenda.

13th. No sleep. Much thirst. Tongue still furred and dry. Pulse 110. Pains no better. Left arm very painful; hand and wrist swelled.

℞ Liquoris Morphinae Acetatis m.v.

Misturæ Camphoræ f̄ʒj. Misc.

Fiat haustus horâ somni sumendus.

15th. Slept better. Tongue whitish. Thirst considerable. No appetite. Bowels regular. Pulse 104, sharp. Skin very hot. Urine high-coloured. Has most pain in the wrists.

To have ten leeches to each wrist.

16th. Less pain in the wrists; but the ankles are painful. Pulse 125. Appetite bad.

To have ten leeches to each ankle.

To take two ounces of the *Mistura Cinchonæ* four times a day.

17th. Pains less severe. Pulse 100, soft. Tongue dry.

Much thirst.

19th. Mouth very sore.

To omit the pills.

To continue the mixture.

20th. Legs, arms, and wrists are very sore and stiff, but less painful. Pulse 100, sharp. Skin hot. Tongue furred. Much thirst. Appetite bad. Bowels regular. Urine high-coloured.

To take the hot bath every night.

21st. Feels better. Pulse 100. Tongue moist. Less thirst.

Has very little pain, but much debility of the limbs.

23rd. Complains of pain only in the right shoulder.

To have six leeches to the right shoulder.

24th. No pain. General health good. Is able to walk about.

27th. No pain, but much stiffness. Pulse 90. Tongue clean.

Appetite good. Bowels were opened by an aperient draught this morning.

29th. No pain, but limbs are feeble.

30th. Still free from pain, and gains strength. General health good.

31st. No pain in any of the joints.

1st September. Complains only of stiffness and debility of the joints.

3rd. Stiffness much relieved: is nearly well.

6th. Is convalescent.

16th. Discharged quite cured.

OBSERVATIONS.

This girl was cured by calomel so as to make her mouth sore, by cinchona-bark, leeches, and the hot bath; and I really can hardly tell which of them contributed the most towards her recovery. But if

I were obliged to mention one of them, I should probably say the leeches.

CASE LXV.—Rheumatismus chronicus. Arthrosia chronica.
Chronic Rheumatism.

23rd September, 1833.

Sarah Gradwell, unmarried, a calico-printer, aged 23 years, has been ill two months. Complains of pain in the knees and shoulders. Thinks it was first produced by her having got wet. General health is not affected.

To have six leeches to each knee.

To take a mercurial pill every night and morning.

24th. Says she is quite free from pain this morning.

25th. No complaints. Pain has completely left her.

To omit the pills.

27th. Feels well.

7th October. Discharged cured.

CASE LXVI.—Rheumatismus chronicus. Arthrosia chronica.
Chronic Rheumatism.

23rd September, 1833.

John Gaffney, a tailor, married, aged 29 years, has been affected thirteen weeks. His complaint has been chiefly confined to his back. It is worse when he is warm in bed.

He complains at present of pain in the breast and right shoulder. Has occasional pain in the belly, which he attributes to costiveness. Bowels have not been moved for some days. Tongue is much coated. Has a disagreeable taste in the mouth. Appetite bad. Pain in the back is very acute when he attempts to bend the body, or move the head from side to side.

To take immediately one scruple of the Pulvis Hydrargyri
Submuriatis cum Jalapâ.

Vesperè. 7 P. M. Bowels not opened.

To take three fluid ounces of the *Mistura Magnesiæ Sulphatis*, and to repeat it if necessary.

24th. Bowels have not yet been opened.

To repeat the mixture.

25th. Bowels have been freely moved. Feels much relieved.

Tongue coated. Has had much pain across the loins in the night.

To have the hot bath every night.

26th. Bowels opened this morning by a draught. Pain in the loins and between the shoulders continues, but is less acute. Tongue is rather furred. Appetite good.

To take three times a day one of the *Pilulæ Hydrargyri Submuriatis compositæ*.

27th. Is much better. Has very little pain now. Bowels open. Tongue cleaner.

29th. Much better. Pain all gone. Some debility of the back. Tongue cleaner.

1st October. Is nearly well.

3rd. Has had some pain, and also purging.

To omit the pills.

5th. To omit the hot bath.

7th. Discharged quite cured.

AMENORRHEA.

CASE LXVII.—Amenorrhœa emansionis. Paramenia obstructionis Emansio.

1st July, 1833.

Betty Linney, in the 20th year of her age, unmarried, works in a cotton-factory, is of a strumous habit, very pale, with delicate

features. Has been ill, she says, four years. Has never menstruated. Is much troubled with wind and globus hystericus. Pain in the epigastrium increased after eating, but not increased by pressure. Pain in the back, shoulders, and calves of the legs. Has some ulcerations on her back. Pulse rapid and small. Tongue streaked with white and slightly red at the tip. Bowels very irregular, sometimes costive, at other times very much relaxed.

Eight leeches to the epigastrium.

Common poultices afterwards to the epigastrium and abdomen.

Misturæ Acidi Sulphurici f̄ij. quater indies.

Lotio Zinci Sulphatis ulceribus externis.

To lie in bed, and take rice diet, biscuit, and barley-water.

2nd. Much better this morning. Bowels confined.

Half an ounce of castor-oil immediately.

3rd. Took the castor-oil in the morning and again in the evening yesterday. Bowels open.

4th. Much improved. Has not felt pain since the application of leeches. Appetite good. Slept well. Tongue clean.

5th. Pulse sharp and quick. Feels thirsty.

℞ Tincturæ Digitalis f̄j.

Misturæ Acidi sulphurici f̄vi. Miscæ.

Sumat f̄jss. quater quotidie.

Omit the other mixture.

7th. Increase the Tincture of Digitalis to f̄jss. in the course of a day.

8th. Complains of pain in the back, shoulders, arms, thighs, and legs. Pulse low. Appetite very bad. Bowels regular.

9th. Breathing rather obstructed, particularly at night.

10th. Rather better. Less pain in the back.

Appetite not improved. Pulse still weak and thready.

11th. Feels very sick and faint. Pulse slow and regular. Pains less. Slept well. Bowels open.

Omit the mixture of digitalis.

12th. Went home at her own request.

OBSERVATIONS.

This is the case of a female, who had never menstruated, although in her twentieth year. Females are generally very anxious about this matter; although, if the absence of the menses do not bring on any particular disease, I do not know that there is much reason to be anxious about it, as it is generally cured by marriage. Sometimes the absence of the catamenia in young women produces the most unpleasant consequences; palpitation or even inflammation of the heart; congestion, or inflammation, or apoplexy of the lungs; hæmoptysis, or spitting of blood; asthma; dropsy; and other diseases. In the instance before us there was nothing of this kind, and I considered it a fair case in which to make the experiment of the effect of digitalis on the catamenia. Digitalis is said to have a peculiar determination to the genital organs both in the male and in the female; so much so in the latter, as to be capable of producing abortion. However, our patient took it for seven days only, when it produced so much sickness and fainting, and such a lowering of the pulse as to oblige me to omit it. It had produced no effect on the genital organs that I know of. Had the patient continued in the house I should most likely have resumed it in a few days. When this patient came into the house she evidently laboured under inflammation of the stomach and intestines, which, however, was quite unconnected with her

amenorrhœa. For this I treated her by leeches, poultices, and a mucilaginous diet. She was also of a very strumous habit, which was my reason for giving her the sulphuric acid mixture. Had she remained in the house, and the digitalis had entirely failed in bringing on the catamenial discharge, I should have administered the “*pilula aloës cum myrrhâ*,” or the “*pilula aloës cum ferro*,” or the “*pilula ferri composita*,” or the “*mistura ferri composita* ;” all of which undoubtedly possess very great efficacy in this respect, and may be confidently recommended to your employment; as, if there be such things as emmenagogues, these are certainly they.

This girl was discharged at her own request, and I did not oppose her wish to go home; as, certainly, the close air and confinement of the wards of an hospital cannot but be very unfavourable to recovery from her complaint, especially in one born and brought up, as she was, in the country.

CASE LXVIII.—Amenorrhœa suppressionis. Paramenia obstructionis Suppressio. -

15th August, 1833.

Maria Grant, unmarried, aged 17, a piecer in a cotton-factory, says she has not menstruated since last Whitsuntide, the last week in May, and has, from that time, felt pain in the stomach and bowels, not constant but at times, particularly towards night, very acute. Bowels rather loose. Tongue furred at the centre, red at the sides. Bad taste. Sleeps ill. Appetite bad. Pulse 98. No cough.

R Tincturæ Digitalis fʒj.

Misturæ Camphoræ fʒvi. Misce.

Sumatur fʒjss. quater quotidie.

16th. Had much pain in the stomach during the night. Tongue whitish. Bowels open. Appetite impaired. Pulse 84.

19th. Free from pain. Tongue clean. Appetite good. Bowels regular. Pulse 80. No catamenia.

20th. Had pain in her stomach after taking her food. Feels rather sick. Pulse 70, small. Tongue clean. Appetite good. Bowels regular. Is free from pain at present.

21st. No pain. Pulse 85, stronger. Sleeps well. Bowels rather loose.

22nd. Had much pain in the stomach and bowels during the night. Bowels open three times yesterday. Tongue clean. Pain not increased by pressure, but is worse after taking food. Pulse 85, regular.

To have six leeches applied to the stomach.

23rd. Less pain. Pulse 78.

To omit the mixture.

24th. Had much pain in the night. Pulse 100, small. Tongue furred. Bad taste. Bowels regular.

To have six leeches to the epigastrium.

25th. Feels better. No pain since the leeches. Tongue cleaner.

To take two of the Pilulæ Ferri compositæ three times a day.

26th. Has had a recurrence of the pain. Bowels moved three times. Tongue furred. Appetite good. Bad taste. Pulse 85, regular. Pain not increased by pressure.

27th. No pain in the night. Feels pretty well this morning.

28th. A little pain in the night. No complaint this morning.

29th. Bowels loose, but feels no pain. Tongue clean. Appetite good.

30th. Makes no complaints.

2nd September. Discharged cured.

OBSERVATIONS.

This is a case something similar to the cases of Sarah Smith and Mary Ann Mac Alvine, Cases No. 47 and 48, except that in their cases the vicarious irritation established itself in the pleura; in this case it established itself in the mucous membrane of the stomach and intestines, forming gastro-enteritis. At all events, the interior of the Infirmary is the very worst place for young girls who labour under amenorrhœa, and who ought to be taking daily exercise in the open air. I, therefore, always send them out as soon as I have relieved their most urgent symptoms.

CASE LXIX.—Feigned Disease: Amenorrhœa emansionis.
Real Affection: Graviditas.

1st July, 1833.

M. A. B., unmarried, working in a cotton factory, in her 20th year, says she has never menstruated. Has been ill, she says, nine months. The complaint came on with pain in the head and side. Has been in the habit of vomiting her food shortly after taking it, when the pain has been acute; after which she has always felt relieved.

She now complains of pain in her right side, much increased after taking food, when she is liable to swell and vomit. Has some pain in her back. Is very costive. Pulse low and feeble. Complains of thirst, and occasional chills. Has some little pain in the thighs and legs.

To take castor-oil.

2nd. Bowels have been well moved. Tongue red but clean. Very acute pain in the epigastrium in the night. Pulse quick and

feeble. Feels thirsty. Has pain in the back. Vomited her food this morning.

3rd. Vomited her breakfast this morning. Felt much pain in the night. Epigastrium and belly tender on pressure; the latter a good deal swelled. Has much pain in the back. Pulse small and feeble.

To lie in bed to-morrow morning, in order that a proper examination into her case may be made.

4th. Professes to be quite well this morning. Tongue clean. No vomiting. Bowels open. No pain. Says she has not felt so well for nine months as she does this morning.

Went off of her own accord.

OBSERVATIONS.

The fact is, she confessed to the nurse privately that she was pregnant, and that she could not face the doctor; she therefore walked off without waiting for my arrival. The particulars of the last day were taken early in the morning by the young gentleman who officiates as my clinical clerk. I must be allowed to state in our defence, that this girl was not taken in either by me or by Mr. Lloyd, our able house-apothecary.

CHOREA.

CASE LXX.—Chorea, complicated with Hysteria, and Leprosy. St. Vitus's dance. Danse de saint Weit. Danse de saint Guy. Folie musculaire.

22nd June, 1833.

Grace Plant, aged 24 years, married, attends her own family,

first perceived involuntary motions in her limbs about a month ago. She had the sense of a ball, rising up into her throat, which she attributed to wind. Bowels obstinately costive. Pain in the head. Appetite bad. Tongue clean and moist. Has not perceived her catamenia, except twice and then scanty, since her marriage, a period of six years. Has had three children, the youngest is sixteen months old. Since she weaned her child, a fortnight ago, she has felt considerably better. She has lately laboured under much mental anxiety. She says the first symptoms of her affection were brought on by too much thinking, or, as she terms it, too much study. Pulse slow and rather feeble. Her nose for the last few days, has slightly bled. Has no pain anywhere except the head-ache. Has slight lepra on her legs.

To take five grains of the *Pilula Aloës cum Myrrhâ*, every hour whilst waking.

23rd. Bowels copiously moved. Tongue clean. Appetite good. Cannot sleep. Complains that the rising of wind is very troublesome. No diminution in the involuntary motion of her limbs.

In addition to the pills, to take the warm bath every night.

25th. Perspires much after the warm bath, which she thinks does her good. Leprous affection of her legs much improved. Convulsions less violent. Bowels much purged.

26th. Twitching less considerable. No wind.

27th. Twitching much diminished. General health good. Much purged. Feces of various colours.

28th. Has been troubled with *globus hystericus*. Much pain in the head.

Eight leeches to the temples.

29th. No pain in the head. No *globus hystericus*. Twitching less. Much purged. Feces of various colours.

30th. Leprous eruption much improved.

2nd July. Twitching much better.

3rd. Twitching nearly gone. *Lepra* is also disappearing. Feces much improved in appearance.

12th. Quite well. No twitching. Can thread a small needle with ease. Lepra nearly gone.

13th. Omit the pills and the bath.

15th. Discharged quite well.

OBSERVATIONS.

It is not my intention, gentlemen, to offer you a complete treatise upon each of the diseases which I have the pleasure of presenting to your notice. In the instances of disease which I shall bring before you, you will best see the history in each case. My business then will be to give you the diagnosis and prognosis, with the causes, where they are known. The treatment you can observe from day to day, and I shall have to furnish you with the *rationale* of the treatment; so that, if the patient die, I may still have the satisfaction of proving to you that he was treated according to a *rational* method. For, gentlemen, it is the misfortune of our profession that we are too often judged of, not by the treatment we have pursued, but by the event. “Almost all other arts and sciences are judged by their power and operation; and not by their success and work. The lawyer is judged by the virtue of his pleading, and not by the issue of the cause. The master in the ship approves his art by the directing his course aright, and not by the fortune of the voyage. But the physician, and perhaps the politick, hardly have any proper particular acts, whereby they may make a clear demonstration of their art and abilities, but bear away honour or disgrace principally from the

event, which is ever an unequal judicature. For who can tell, if a patient die or recover,—or if a state be preserved or ruined,—whether it be by art or accident? Therefore it often falls out, that the impostor bears away the prize, virtue the censure.”*

In the case before us, gentlemen, I have principally to remark, that, whereas it is laid down by Sydenham,† that St. Vitus’s dance attacks children of from ten to fourteen years of age, the present patient is twenty-four years of age, and, what is more remarkable, she is a married woman and has had three children. The complication of hysteria with chorea is not to be wondered at, as these two diseases have a considerable resemblance to each other in many particulars. The woman was also affected with *lepra vulgaris*, but it seems quite uncertain whether or not it were the partial suppression of this leprous affection which gave rise to the two nervous affections.

With regard to the predisposing causes of chorea, they are said to be the feminine gender, the nervous temperament, hereditary liability, infancy, or, at any rate, an age before that of puberty. Here, however, we have the curious fact of a married woman with children, she herself being twenty-four years of age, having the disease. The exciting causes of chorea

* Bacon. Of the Advancement of Learning. B. iv., c. ij.

† “*Schedula monitoria.*” Section 19.

are said to be, great fright, a fit of anger, violent and repeated crosses, the presence of worms in the alimentary canal, difficulty or suppression of the menses, and suppressed cutaneous eruptions.

With regard to the seat and nature of chorea, that is to say, its proximate cause, much has been said and written, with which I do not intend to trouble you ; but I will lay before you my own ideas on the subject. The commencement of chorea I believe to be an irritation produced in the intestines either by the presence of accumulated feces, or by the presence of worms. This irritation is conveyed to the brain, and produces uneasiness there. The brain makes an instinctive effort to get rid of this uneasiness ; but, having no power over the involuntary muscles of the intestines, it excites disorderly motions in the only muscles over which it has power, the voluntary. These disorderly motions, being once excited, soon become confirmed by habit, which, as you well know, has great power over the voluntary muscles. The disorderly motions of which I speak have been well designated by a French author, *la folie musculaire*, that is to say, muscular madness. Now, the consequence of the confirmation of the habit of disorderly motions in the voluntary muscles, is that the motions do not immediately cease upon the removal of the cause which originally excited them, but sometimes continue for months, sometimes for years.

The remedies which have been recommended for chorea, may be reduced to four classes, bloodletting, purgatives, antispasmodics, and tonics. Bloodletting, purgatives, and opiates, that is to say antispasmodics, were employed by the celebrated Sydenham,* in a kind of alternate manner, which it is quite unnecessary for me to describe particularly. Purgatives were employed with great success by Dr. Hamilton,† and I may add that I enjoyed the advantage of daily witnessing his practice in this and other diseases, in the Royal Infirmary of Edinburgh. Dr. Currie, whose practice I had the pleasure of witnessing at Guy's Hospital, was very partial to tonics, especially the sulphate of zinc, with which he certainly had great success. No one, I think, has employed antispasmodics alone.

Having tried all these plans, I should recommend you, if the patient be young and vigorous, and especially if he or she have any fixed pain, to draw blood either from the arm, or by means of leeches applied to the part affected. I did so, that is, I applied leeches to the head in the case before you, which immediately removed the pain. I should then, with a view to remove the great accumulation from the intestines, administer one of the *pilulæ aloës cum myrrhâ*, every hour during waking. It is necessary

* "Schedula monitoria." Section 20.

† Hamilton, on Purgative Medicines.

to give them every hour in order to keep up completely the peristaltic action of the bowels; and you will be completely astonished, if you inspect the feces every day, which you certainly ought to do, to witness the appearance of them. In the first place the quantity of them will surprise you; in the second place, the great varieties of colours will a little amaze you. You will see part of them black, part brown, deep yellow, light yellow, green, clay-coloured. When you have continued the purging until the feces are of a uniform and natural colour, and you will be surprised to find how well the patients bear this purging, you may then omit the purgative pills, and give a tonic pill of one or two grains of sulphate of zinc, three or four times a day; with a sulphuric acid mixture containing a proper and regular dose of the acetate of morphine. You may also, at any period of the treatment, employ the shower bath. The reason why I employed the hot bath in Grace Plant's case, was the fear that her disorder had in some measure arisen from the partial suppression of the lepra; and also because the hot bath would at any rate be beneficial to her lepra. If you think that suppression of the catamenia has any thing at all to do with the complaint, you may give the pilula ferri composita; although the constant purging with the pilula aloës cum myrrhâ will most probably produce a very beneficial effect upon the uterine system in cases of the partial or total suppression of the catamenia.

If you proceed upon the principles just laid down to you, I cannot doubt that you will have the same success in every case of chorea coming under your care, as I myself have had.

CASE LXXI.—Chorea. St. Vitus's dance.

1st July, 1833.

James Lowe, a boy, aged 12 years, works in a cotton-factory. Has been ill six months. The convulsions are very strong; he is entirely speechless from the difficulty of articulating; he has much stupor. Bowels are costive. Tongue is foul. He has pain in the head.

To take a pill of five grains of the pilula Aloës cum Myrrhâ every hour whilst waking.

2nd. Bowels unmoved.

3rd. Has had very copious motions; the stools consist of an immense quantity of feculent matter of all colours. He is rather improved.

5th. Still continues to pass motions similar to those on the 3rd. Speech is improved. Convulsions much better.

12th. Continues to take the pills which produce daily evacuations from the bowels.

15th. Stools more natural. Twitchings much diminished, but not cured. Speech improved.

17th. To have the shower bath every morning, and to continue the pills.

19th. Twitching greatly diminished. Stools still more natural. Tongue clean. Appetite good.

23rd. Twitching continues, but considerably abated.

24th. Has complained for several mornings past of head-ache after the bath.

To omit the bath and the pills.

To take Pilula Zinci Sulphatis j. ter in die.

26th. Twitchings better than they have ever been before.
Speech much improved.

1st August. Twitching not yet quite gone.

R Liquoris Morphinae Acetatis m.vi.

Misturæ Acidi Sulphurici fʒiij. Miscæ.

To take an ounce after each pill.

2nd. Twitches less to-day. Slept better. General health good. Speech is improved.

9th. Twitching is nearly gone. Speech entirely restored.

13th. Very little twitching. General health good. Bowels regular.

15th. No twitching. General health good.

19th. Discharged quite cured.

OBSERVATIONS.

I have not much to say upon this case. It illustrates, however, what I said, upon the case of Grace Plant, of the beneficial effects of purging, and of the tonic pill of sulphate of zinc towards the close of the disease. The lad had been ill for six months: he was cured in about six weeks, which we consider but a short period for this complaint.

PAINTERS' COLIC.

CASE LXXII.—Colica Pictonum. Colica Rhachialgia. Colique de plomb. Colique saturnine. Painters' Colic. Colic of Poitou. Devonshire Colic.

28th June, 1833.

William Radcliffe, house painter, in his 19th year, unmarried, was obliged to leave his work about a fortnight ago, in consequence

of acute griping pains in his bowels. He now complains of pain over his whole abdomen, which is not increased, but is made easier by pressure. Bowels have been for some time constipated. Tongue foul, coated with white. Bad taste in his mouth. No appetite. Has pain in his back, shoulders, elbows, wrists, and legs, the joints of which, as he says, are very weak. Has vomited very frequently a bilious looking matter. Is much troubled with wind. Feels thirsty. No head-ache. Pulse 90, full and very hard.

Pain in the abdomen at present very acute; varies in its intensity. Belly slightly tender on pressure; but not tense nor retracted. Feels an inclination to go to stool, but parts with nothing.

The hot bath immediately.

Twenty grains of calomel in the form of a bolus immediately.

Half an ounce of castor-oil afterwards.

In the evening twenty leeches to the belly.

29th. Felt easier after the bath. The application of leeches was followed by copious purging. Tongue white and furred. Pulse quick, thready, and tremulous. Great thirst. Pain in the back gone: that in the abdomen continues.

Vesperè. Pulse cannot be counted from its quickness; it is exceedingly hard and wiry.

The hot bath immediately, and then twelve leeches to the belly.

30th. Very little pain in the abdomen, and it is not tender on pressure. Pulse still very quick. Pain in the limbs much better. No pain in the back. Has had no sleep last night. Much purging and tenesmus. Motions loose and bloody, with purulent looking matter.

Common poultices to be kept continually on the belly.

R. *Misturæ Cretæ* f̄ $\bar{3}$ vi.

Tincturæ Opii f̄ $\bar{3}$ j. *Misce.*

Sumatur f̄ $\bar{3}$ jss. *tertiâ quâque horâ.*

Hot bath at night.

Rice diet.

1st July. Feels that he has very much improved. Pain in the abdomen less. Purging and tenesmus much diminished. Motions less bloody, but very liquid. Pulse quick, hard, and jerking. Wind rather annoys him.

Continue the poultices, hot bath, and chalk mixture with opium.

2nd. Pulse more quiet, less quick. Tongue cleaner. Much less pain in the abdomen. Pain in the limbs entirely gone. Is still purged, but has less tenesmus, and no blood. No thirst. Appetite improved. Still troubled with wind.

Continue every thing as before.

3rd. Bowels still relaxed, and stools liquid, but no blood. Much less annoyed by wind.

4th. Very much better. Bowels quiet.

5th. Very little pain. Tongue clean. Much better.

9th. Feels quite well. Pulse strong and healthy. Tongue clean. Appetite good. Bowels regular; stools natural. No pain. To leave off every thing. To sit up out of bed; and take common diet.

15th. Discharged cured.

OBSERVATIONS.

The remote cause of the Colica Pictonum or Painters' Colic, is the taking of the oxydes or salts of lead into the system. This may be done in three ways; by absorption through the cuticle, by inhalation of the fumes through the means of respiration, or by the mixing of the fumes with the saliva in the mouth, and their being thus sent into the stomach and intestines. The proximate cause is the poisonous action which all the oxydes and salts of lead exert upon the nervous system, in rendering it absolutely torpid, and thus inducing paralysis in all those

muscles which are supplied by nerves that have been rendered torpid by the action of the oxydes or salts of lead. So potent is lead in inducing paralysis, that this affection has been brought on by the continued use of water drawn up from a well through the leaden pipe of a pump. Water conveyed through the streets of a town by means of leaden pipes, water received and suffered to stand for a time in leaden cisterns, are also capable by a long continued use of inducing a poisonous effect upon the system. For the truth of these assertions I appeal to the authority of the celebrated Dr. Dalton, from whom I have heard them in conversation.

The exact manner in which colica pictonum is produced it is very difficult to say. It has been supposed that the action of the lead lessens or entirely prevents the secretion of mucus in the intestinal canal, but does not prevent the secretion of bile in the liver. The bile then being thrown into the intestines, and being undiluted by the usual quantity of mucus acts violently in provoking vomiting and spasm. This explanation, I confess, does not satisfy me. I suppose that the presence of the lead paralyses a great number of the muscular fibres of the alimentary canal, but not all of them. There is thus an impediment to the complete peristaltic action of the canal, and a remora in the passage of the feces. Accumulation, therefore, takes place, which by its stimulus produces spasms in those muscular fibres which are not completely paralysed,

also in some of the fibres which are in some degree paralysed, and likewise in the muscles which form the parietes of the abdomen. As for the pains in the legs they no doubt depend upon the same causes as in gastro-enteritis.

Now, for the treatment. Bleeding if the patient be young enough. Hot baths, poultices, and fomentations. Calomel in large doses, castor-oil, and opium. The diet, if the patient can eat, should be mild, diluent, farinaceous and mucilaginous. Our present patient was treated upon this plan and you have seen how speedily and how happily he recovered. After the violence of the colic is removed, there is nothing so efficacious against the paralysis which may remain in the limbs, as the use of the sulphureous waters of Harrogate, both in the form of baths, and also in that of drink.

SYPHILIS SECUNDARIA.

CASE LXXIII.—Syphilis secundaria. Secondary Syphilis.

1st July, 1833.

Joseph Hyde, a carter, unmarried, aged 28 years, when admitted endeavoured to pass off all his symptoms as those of chronic rheumatism. He has been complaining for five weeks of pains chiefly in the hips, shin-bones, across the loins, in the shoulders, elbows, &c. They are worse when he is warm in bed. He has very little use

of the right thigh and leg. His throat is very sore and ulcerated. He had syphilis about six months ago, and has taken a great deal of hydrargyrum. He has blotches on his face and legs. Has some ulcers on his legs.

℞ Hydrargyri Submuriatis gr.j.

Extracti Hyoscyami gr.v. Misce.

Fiat pilula quater quotidie sumenda.

To have the hot bath every night.

2nd. Bowels have been well opened. Had much pain during the night in his shins, &c. which caused him to start up frequently from bed. Throat the same.

3rd. Pain was less urgent in the night. Throat rather better. Tongue loaded. Is much purged.

To omit the pills.

To take of the Pilula Hydrargyri Oxymuriatis one four times a day.

To take a pint of compound decoction of sarsaparilla daily.

To use frequently the Gargarismus Hydrargyri Oxymuriatis.

To use the hot bath every night.

To lie in bed, and take rice diet, biscuit, and barley-water.

4th. Less pain. Bowels open. Throat better. No pain in the head.

5th. Feels better. Pains less. Throat less sore; looks better.

6th. Ulcers improved since he has been confined to bed. Less pain. Throat improved.

9th. Throat much better. Ulcers healing.

12th. Still feels pain at nights in his shins, knees, elbows, arms, &c., but not very great. Throat nearly well. Ulcers on the legs healing.

15th. Complains of great itching over his body. The pains still troublesome.

17th. Much the same. Mouth not sore.

To take one of the pills six times a day.

19th. Pains considerably relieved. Throat perfectly well. Ulcers much improved. General health good.

To omit the gargle.

20th. Pains much abated.

23rd. Feels pains only at night, and then much less than he did formerly. Ulcers nearly healed. General health good.

24th. Pains relieved.

26th. Still improving, Ulcers healed.

27th. Quite well.

To omit every thing.

29th. Discharged quite cured.

CASE LXXIV.—Syphilis secundaria. Secondary Syphilis.

1st July, 1833.

Henry Heap, unmarried, a stone-mason, aged 28 years, laboured under syphilis three years ago, and has, at various times, taken calomel for it. Has pains in his shin-bones, knees, elbows, shoulders, and over the forehead. He feels worse when warm in bed. Has copper-coloured blotches on the legs and other parts. His throat is inflamed and ulcerated. Bowels are costive.

The gargle of corrosive sublimate for his throat.

Pilula Hydrargyri Oxymuriatis one four times a day.

Compound decoction of sarsaparilla, a pint daily.

The hot bath every night.

To lie in bed, and have rice diet.

2nd. Had much pain during the night in his shins and other parts, which subsided as the day approached. Has no pain in his head. Throat much the same. Bowels costive.

3rd. Less pain in the night. Throat better. Bowels costive. Appetite good.

To have three fluid ounces of the *Mistura Sennæ composita* immediately.

12th. Continues to feel pains in the night, but they are much better than they were. Throat nearly well. Blotches on the legs remain stationary. General health good.

16th. Had considerable pains in the night, which prevented his sleeping.

To take the pill six times a day.

19th. Pains some little better. Throat perfectly well. Blotches on his legs not removed. Bowels were very loose in the night, and had some tenesmus.

To omit the gargle.

22nd. Feels easier. Bowels quiet.

23rd. Still complains of pains in his hips, knees, shins, and elbows. None in his head.

24th. Still complains of pain. Says he can hardly support himself on his left hip.

To omit the pills of corrosive sublimate.

To take mercurial pills, two at night and one in the morning.

25th. Feels better. Pains less.

26th. Pain in the left hip still troublesome. Is otherwise better. Mouth not sore.

27th. Could not sleep for pain in the hip. Feels in other respects as before.

28th. Feels easier. Hip is better. Slept well.

29th. Pains diminish. Spots not so dark-coloured.

31st. The pills begin to show their effects. He complains of soreness of the gums. Feels no pain in the hip now, and has less pain generally.

1st August. Is still improving. The blotches on his legs seem to decrease.

3rd. Hip well. Feels better. Has less pain. Appetite good.

8th. Is nearly quite well, except that the blotches on his legs have not disappeared.

9th. Says he feels very little pain in the night. Mouth rather sore.

12th. No pain. Blotches continue.

15th. No pain. Blotches improving.

16th. No pain. Mouth very sore.

To omit the mercurial pills.

23rd. Continues free from pain. Blotches have nearly disappeared.

26th. Discharged cured.

OBSERVATIONS.

I have only a single remark to make. It is as to the use of rice diet in these cases of secondary syphilis. My object in putting the patients on this diet is two-fold. First, whenever we administer the corrosive sublimate internally to a patient, we ought to put the patient upon a rice diet, because it is the most likely way of checking that irritation of the bowels which corrosive sublimate taken internally is so apt to produce. Secondly, as the pains of the head and limbs in this complaint, have their origin, undoubtedly, in inflammation of the periosteum, a rice diet is a much more likely means of assisting to overcome this inflammation, than a diet consisting of animal food and fermented liquors. Therefore, for these and other reasons, always keep patients with secondary syphilis on a rice diet, in bed, and in a warm room.

CASE LXXV.—Syphilis secundaria. Secondary Syphilis.
23rd September, 1833.

James Hill, unmarried, a coal-miner, aged 21 years, says it is ten months since he first perceived any primary symptom. He had a primary ulcer which healed eight months ago. The inguinal glands were swelled, but did not suppurate.

His sore throat commenced a fortnight ago. He complains of pain in the shin-bones, forehead, &c. His throat is much inflamed, and the left tonsil ulcerated. He has copper-coloured blotches on the face, breast, shoulders, &c. He says he has been salivated, and the blotches have since much decreased. Bowels costive. Tongue furred. Copper taste in the mouth. No appetite.

To take one of the *Pilulæ Hydrargyri Oxymuriatis* four times a day.

To use the *Gargarisma Hydrargyri Oxymuriatis* frequently.

To take a pint of the compound decoction of *sarsaparilla* daily.

To use the hot bath every night.

To lie in bed.

To have rice diet, biscuit, and barley-water.

25th. Is better. No pain in the night. Throat improved. Bowels open. General health good.

28th. Feels much better. Very little pain. Throat improving. No thirst. Bowels regular.

1st October. Throat nearly well. No complaint of pain.

7th. Feels well. No pain. No soreness of throat. Spots are nearly gone.

To omit the gargle.

9th. Nearly quite well.

To be allowed to sit up.

12th. To omit every thing.

14th. Discharged quite cured.

CASE LXXVI.—*Syphilis secundaria*. Secondary Syphilis.
4th November, 1833.

Esther Tinsley, a widow, and a char-woman, aged 23, has been affected for four months. She had previously to that time, a chronic sore throat, pains in her bones, and spots on her skin.

On admission she complained of much pain in her shin bones, knees, elbows, and wrists. She has a large ulcer on the calf of the right leg. No sore throat at present. Tongue whitish, and furred. Bowels costive. Appetite bad. Skin hot. Pains are worse when she is warm. Pulse quick and feeble. Feels thirsty.

Six leeches to each wrist.

Pilula Hydrargyri Oxymuriatis j. quater quotidie.

A pint of the compound decoction of *sarsaparilla* daily.

The hot bath every night.

To lie in bed and have rice diet.

To have a poultice to the ulcer in her leg.

6th. Legs less painful. No pain in the wrists, but the pain in the shoulder severe.

8th. Pains nearly gone. Ulcer looks well. Bowels open

9th. Going on well. Bowels costive.

To have half an ounce of castor-oil.

10th. Bowels open. Feels much better.

12th. Throat rather sore. Tonsils red, otherwise improving.

15th. Leg painful. Otherwise quite well.

17th. Leg less painful. Ulcer clean and healing.

22nd. Has felt some recurrence of pain these two days.

Bowels costive.

23rd. Is much better. She still complains of pain in her shoulder and limbs.

To have half an ounce of castor-oil.

28th. Has very little pain. Ulcer very nearly well.

3rd December. She is nearly quite well. Ulcer nearly healed.

General health good.

6th. Says she has occasional pain in her right shoulder. Leg is not much ulcerated. She is nearly quite well.

9th. Discharged cured.

OBSERVATIONS.

This woman, gentlemen, when she came in, wished to persuade us that her complaint was chronic rheumatism; and even when she was going out cured, she still complained of a pain in her right shoulder. But, there was no mistaking her complaint. She was confined in bed just five weeks, and was sent out perfectly cured.

DROPSY.

Hydrops. Hydropes. Hydropisie. Dropsy.

You know, gentlemen, that in a state of health, those cavities of the human body, which have no external communication, as the ventricles of the brain, the cavity of the thorax, the cavity of the pericardium, the cavity of the peritoneum, the cells of the cellular tissue, are lubricated by a serous fluid, constantly secreted by the exhaling vessels, and as constantly taken up by the absorbing vessels, so as merely to leave the surfaces of each cavity moist, without any excess or deficiency of the lubricating fluid. This is the state of health with regard to these cavities.

When the fluid which moistens these cavities becomes excessive, so as to distend them, the disease is called dropsy. The fluid may become excessive in three ways so as to form three kinds of dropsy: 1st, by a defect of absorption; 2ndly, by an excess of secretion; 3rdly, by a combination of these two causes, the defect of absorption and the excess of secretion. The first kind may be styled *passive* dropsy, the second kind *active* dropsy, and the third *mixed* dropsy.

The celebrated Magendie, one of the most philosophical and accurate experimenters that ever lived, has fully proved that the lymphatics do not absorb

any thing except the chyle ; and he has also as fully proved that the veins absorb every fluid that comes in contact with them except the chyle, and also every solid that is capable of solution in the serum of the blood.

A dog was made to swallow four ounces of decoction of rhubarb. Half an hour afterwards the lymph of the thoracic duct was taken and examined. It presented no trace of rhubarb, although nearly half the decoction had disappeared from the intestinal canal, and the urine showed sensible marks of rhubarb.*

A dog was made to take six ounces of a solution of prussiate of potash in water. A quarter of an hour afterwards the urine evidently contained the prussiate. The lymph taken from the thoracic duct showed no marks of it.† The detection of the prussiate of potash is one of the easiest things in the world ; you have nothing to do but add a dilute solution of sulphate of iron, which, if there be prussiate of potash present, produces a beautiful blue colour.

Three ounces of alcohol diluted with water were given to a dog. In a quarter of an hour the blood of the dog had a decided smell of alcohol ; the lymph had no such smell.‡

The thoracic duct of a dog having been tied at

* *Precis elementaire de Physiologie.* Par F. Magendie. 2me. Edition. Tome 2nd. Page 202.

† *Ibidem.* P. 202.

‡ *Ibidem.* P. 202.

the neck, two ounces of a decoction of *nux vomica* were given to the animal. It died as quickly as if the thoracic duct had been left free. On opening the dog, it was ascertained that the thoracic duct was not double, that it had but one opening into the left subclavian vein, and that it had been completely tied.*

The thoracic duct of another dog was tied at the same part, and two ounces of a decoction of *nux vomica* were injected into his rectum. The effects were the same as if the duct had not been tied. The animal was quickly dead. The state of the canal was found to be the same as in the foregoing experiment.†

M. Magendie and M. Delille made the following experiment on a dog which, seven hours previously, had been caused to eat a large quantity of flesh, in order that the lacteal lymphatics should become easy to be perceived. They made an incision in the abdominal parietes, and drew out a portion of small intestine, on which they applied two ligatures at the distance of sixteen inches the one from the other. The lymphatics which had their origin from this portion of intestine were very white and very perceptible on account of the chyle which distended them. Two fresh ligatures were placed on each of these vessels at the distance of four inches, and each vessel was cut between the two ligatures. Care was

* *Ibidem.* P. 203.

† *Ibidem.* P. 203.

taken by every possible means, that the portion of intestine drawn out of the abdomen had no longer any communication with the rest of the body by means of the lymphatic vessels. Five mesenteric arteries and five veins supplied this portion of intestine; four of the arteries and four of the veins were tied and cut in the same manner as the lymphatic vessels. Then the two extremities of the portion of intestine were cut, and it was entirely separated from the rest of the small intestine. Thus they had a portion of small intestine, sixteen inches long, communicating with the rest of the system only by a mesenteric artery and vein. These two vessels were insulated for the length of four finger-breadths; even the cellular coat was taken away lest it should conceal lymphatic vessels. There were then injected into the portion of intestine, about two ounces of decoction of nux vomica, and ligatures were applied to prevent the escape of the injected fluid. The portion of intestine wrapped in a piece of fine linen cloth, was replaced in the abdomen. This was done exactly at one o'clock: at six minutes past one, the effects of the poison were exhibited in their ordinary intensity; so that the result was the same as if the portion of intestine had been in its natural state.*

Doctor Segalas made the counterpart of this last experiment. He took a portion of intestine which

* *Ibidem.* Pp. 203—5.

he separated from the neighbouring parts by two incisions. He tied the arteries and veins which supplied this portion, with the precaution of not including in the ligatures the lacteal vessels which were rendered visible by the presence of chyle. He applied a ligature to one extremity of the portion of intestine. He injected into its cavity an aqueous solution of alcoholic extract of nux vomica. He kept this in the intestine by means of a second ligature. He replaced the portion of intestine in the belly. No poisoning took place in the entire hour during which he observed the animal. Yet the extract was perfectly good; and a few grains of it had already proved sufficient in former experiments, to destroy the dogs upon which he had operated.*

To avoid the objection, sufficiently well-founded, of the possible death of the portion of intestine, Dr. Segalas, on a second dog, took a portion of the intestine which he separated in the same manner as before from the rest of the digestive tube, and from the circulating system, leaving only a large artery to carry blood to the part. The result was the same as in the former case; there was no poisoning.†

In order to obviate the objection that the stagnation of venous blood in the portion of intestine might occasion a kind of local asphyxia, which, relatively to absorption, might be equivalent to real

* *Ibidem.* P. 205.

† *Ibidem.* P. 207.

death, Dr. Segalas, in a third dog, took a portion of intestine, which he prepared exactly as in the last case, with this difference, that he separated from the mesentery the vein corresponding to the retained artery, and kept it outside of the abdomen. By this vein he allowed the excess of venous blood to escape. In this case likewise the poison placed in the portion of intestine failed to act.*

Lastly, Dr. Segalas after having in vain endeavoured to poison a dog, in the manner of the preceding experiments, and having waited during an entire hour, proceeded to re-establish the natural circulation by untying a vein; upon which, at the end of six minutes, the poisoning took place.†

M. Magendie and M. Dupuytreu made more than a hundred and fifty experiments, in which they subjected to the absorption of serous membranes a great number of different fluids, and they never on any occasion found those fluids introduced into the lymphatic vessels.‡ The substances thus introduced into serous cavities were such as produce their appropriate effects very quickly, on account of the rapidity with which they are absorbed. Opium quickly produces sleep; wine as quickly causes intoxication. M. Magendie ascertained, by several experiments, that the tying of the thoracic duct

* Ibidem. Pp. 207, 208.

† Ibidem. P. 208.

‡ Ibidem. P. 211.

does not by any means retard the manifestation of these effects.*

M. Magendie adds, that there is no doubt that any substance, solid or liquid, susceptible of being absorbed, may be soaked into the walls of the lymphatic vessels, and may thus arrive, by a purely physical, as distinguished from a vital, mode of action, at the interior of those vessels.† This phenomenon is called *imbibition*, and is, I apprehend, equivalent to what has been lately called *endosmosis*, and *exosmosis*,‡ But, he says, that absorption, properly so called, does not consist solely of a phenomenon of this kind. It will be further necessary that the substance which has penetrated into the cavity of the vessels, should be dragged along in the circulating torrent. But, most frequently, the lymphatic vessels are empty. They do not contain any current which could carry along the matters which they might have absorbed. This defect of current should alone prevent us from regarding the lymphatic system as the absorbing system.||

With regard to venous absorption, M. Magendie

* Ibidem. Pp. 211, 212.

† Nouvelles Recherches sur l'Endosmose et l'Exosmose. Par M. Dutrochet. A Paris. 1828.

‡ F. V. Raspail. Nouveau Système de Chimie organique. Paris. 1833. P. 80.

|| Magendie. Précis élémentaire. 2nd Edition. Tome 2me. Pp. 220, 221.

says that every species of gas or of liquid placed in contact with the various parts of the body, except the skin, passes immediately into the small veins, and speedily arrives at the lungs along with the venous blood. The same thing takes place with all solid substances capable of being dissolved in the blood, or in the secreted fluids. At the end of a very short time, they are introduced into the veins, and are carried to the heart and to the lungs. This introduction is called *venous absorption*.

When the skin is deprived of the cuticle, so as to expose the blood-vessels beneath, absorption takes place there as in every other part. After the application of a blister, if we cover the denuded surface with any substance, of which the effect on the animal economy is easily remarked, a few minutes frequently suffice for its manifestation. Caustics applied upon ulcerated surfaces have sometimes produced death.*

M. Magendie states that the opinion which he entertains that the veins possess the absorbing faculty is not a new opinion. It was professed and maintained by Ruysch, Boerhaave, Meckel, Swammerdam, and also by the celebrated physiologist, Haller, although the anatomical labours of John Hunter were not unknown to him.†

M. Magendie and M. Delille, after having stupified a dog with opium, in order to lessen the pain,

* Ibidem. P. 261.

† Ibidem. P. 265

separated his thigh from his body, only leaving untouched the femoral artery and vein, which kept up the communication between the thigh and the body. These two vessels were dissected with the greatest care; that is to say, they were insulated for the extent of an inch and a half; their cellular tunic was taken off, lest it should conceal lymphatic vessels. Two grains of a very subtile poison, the *upas tienté*, were then inserted into the paw. The effects of this poison were quite as rapid and as intense as if the thigh had not been separated from the body. They showed themselves before the fourth minute, and the animal was dead before the tenth minute.*

To obviate the objection that the coats of the artery and vein might contain lymphatic vessels and that those vessels might give passage to the poison, M. Magendie repeated the experiment upon another dog with the following difference. He introduced a quill into the femoral artery and fixed the vessel upon it by two ligatures. The artery was then cut circularly between the two ligatures. He treated the vein in the same manner. It followed that there was no longer any communication between the thigh and the rest of the body, except by means of the arterial blood which went to the thigh, and the venous blood which returned to the trunk. The poison being then introduced into the paw, produced

* Ibidem. P. 265.

its effects in the ordinary time, that is, about the end of four minutes.*

This last experiment leaves no doubt that the poison passes from the paw to the trunk along the femoral vein. In order to make the fact more clear, the vein may be pressed between the finger and thumb the instant the effects of the poison begin to shew themselves ; when they will immediately cease. They re-appear as soon as the vein is left free, and again cease when the vein is again compressed. The effects may thus be regulated at will.†

If reasoning, independently of direct experiment, be appealed to in favour of the absorbing property of veins, it will be only necessary to reflect that in many parts of the body, where the most exact anatomy has detected only blood-vessels, and no lymphatic vessels, such as the eye, the brain, the placenta, &c. absorption goes on quite as rapidly as every where else. It may be added, that all the non-vertebrated animals which have blood, have no lymphatics, and yet they have manifest absorption. Finally, it may be remarked that the thoracic duct is much too small to afford a sufficiently free and rapid passage to the matters absorbed in all parts of the body ; and particularly to the drink we take in. But all these phenomena are intelligible as soon as absorption by the veins is acknowledged.‡

* Ibidem. P. 266.

† Ibidem. Pp. 266, 267.

‡ Ibidem. Pp. 269, 270.

M. Magendie, in order to ascertain the effect of artificial plethora upon the phenomenon of absorption, injected about two pints of warm water into the veins of a dog of middle size. He then placed upon the pleura a small dose of a substance of which the effects were well known to him. He was struck at finding that these effects did not appear until several minutes after the usual period.*

In another experiment in which M. Magendie had introduced about four pints of water, which was as much as the animal could bear without ceasing to live, the usual effects of the substance placed upon the pleura did not appear at all. Absorption had probably been entirely prevented. After having waited half an hour for effects which commonly appear in about two minutes, M. Magendie considered that, if the distension of the blood-vessels were the cause of the non-absorption, that distension ceasing, absorption ought to take place. He immediately caused a large bleeding from the jugular vein to take place, and saw, with the greatest satisfaction, that the expected effects were exhibited in proportion as the blood flowed away.†

M. Magendie made the counter-experiment. An animal was bled, and thus deprived of about half a pound of blood. After this, the effects which should not have appeared before the lapse of two minutes,

* *Ibidem.* P. 273.

† *Ibidem.* Pp. 273, 274.

showed themselves before the expiration of thirty seconds.*

M. Magendie says that he has proved by a series of experiments that all living tissues are penetrated by all liquid matters which touch them; and even by solid substances, provided those substances be soluble in our humours, and particularly in the serum of the blood.†

M. Magendie is of opinion that this penetration depends on the capillary attraction of the walls of the blood-vessels for the matters absorbed, whereby those walls are entered, and the absorbed matters arrive at the interior of the vessels; where they mingle with, and are carried along by, the sanguine current which exists even in the smallest vessels. This phenomenon is called *Imbibition*.‡

To prove this, M. Magendie took a part of the external jugular vein of a dog. He stripped it of all cellular membrane. He attached to each of its extremities a glass tube, by means of which he established a current of warm water along its interior. He then plunged the vein in a liquid slightly acid; and he collected with care the liquid of the interior current. There was not the slightest communication between the interior current of warm water, and the exterior acidulated liquid. For the first two or three minutes the liquor collected had

* *Ibidem.* P. 274.

† *Ibidem.* P. 272.

‡ *Ibidem.* Pp. 275, 276.

sustained no change; but after five or six minutes the water had become sensibly acid. Absorption had taken place.*

This experiment was repeated with veins taken from dead human bodies. The result was the same.

In order to show that the same thing takes place in living bodies, M. Magendie took a young dog, aged about six weeks. He exposed one of the jugular veins. He insulated it perfectly in its whole length. He stripped it carefully of all that covered it, especially of the cellular membrane. He placed it on a card, in order that it should have no contact with the surrounding parts. He then let fall on its surface over the middle of the card, a thick aqueous solution of alcoholic extract of *nux vomica*, a substance the action of which, upon dogs, is very energetic. He took good care that no part of the poison should touch any thing except the vein and the card; and that the flow of blood was free in the interior of the vessel. Before the fourth minute the expected effects were manifested; at first, indeed, weakly, but afterwards sufficiently strongly to produce the danger of death to the animal.†

M. Magendie repeated this experiment upon an adult animal, much larger than the preceding, and which, consequently, had the walls of the veins thicker. The same effects were exhibited; but, as might have been presumed, much more tardily.

* *Ibidem.* Pp. 277, 278.

† *Ibidem.* P. 279.

They did not appear until after the expiration of ten minutes.

M. Magendie succeeded in similar experiments with the carotid arteries of living rabbits ; and, in the case of one of the rabbits which died under the experiment, he slit open the artery, and caused the persons, who assisted him, to taste the little blood which remained adhering to the internal surface of the artery. They, as well as M. Magendie, recognised the extreme bitterness of the extract of *nuxvomica*.*

To show that the same thing could take place in the small vessels as well as in the large, M. Magendie took the heart of a dog dead the day before, and forced into the coronary artery, water at 86° of Fahrenheit. This water easily found its way through the coronary vein into the right auricle from which it flowed into a cup. He put into the pericardium half an ounce of water slightly acid. At first the injected water gave no sign of acidity, but at the end of five or six minutes it exhibited complete proofs of the presence of acid.

Now, gentlemen, I dare say you will have anticipated the conclusion I am going to draw ; which is this. But, indeed, before I mention it, I must beg to disclaim any right to the authorship. The real author is Dr. Bouillaud, an eminent physician at Paris. The conclusion then is this, that in every

* *Ibidem*. P. 281.

instance of *passive* dropsy, the proximate cause is some impediment to the passage of blood along the veins, and consequently the non-absorption of the serous fluid. That obstruction to the passage of blood along the veins is sufficient to produce dropsy, was shown by some experiments of Lower.* He tied the vena cava inferior of a dog, which died in a few hours. Upon opening it, a collection of serum was found in its abdomen. The jugular veins were tied, when all the parts beyond them were found to be anasarca, and not filled with extravasated blood, as had been anticipated. The impediment to the passage of blood along the veins may be some disease of the heart, as ossification of its valves, contraction of the orifice of the right ventricle, hypertrophy of the right ventricle. Or the impediment may be some tumour lying upon and pressing a great venous trunk, as an enlargement of the liver, spleen, or pancreas, pressing upon the inferior vena cava,—aneurysm of the aorta,—ascites pressing upon the inferior vena cava and the iliac veins, and causing anasarca of the lower extremities,—pregnancy causing the gravid uterus to press upon the iliac veins, and also upon the inferior vena cava. Or, the impediment may be a torpid, an indurated, or a scirrhus state of the liver, or, in short, any state of the liver which prevents or retards the circulation of blood through the vena portæ, which,

* Lower. Tractatus de Corde. Cap. ii.

as you well know, carries all the blood from the organs of digestion in tens of thousands of ramifications through the liver before that blood reaches the heart. Or the impediment may depend upon a plethoric state of the venous system, on account of the diminished secretion of urine, arising from some disease of the kidneys. For, you found it proved by one of M. Magendie's experiments that the avidity with which the veins absorb is directly proportioned to the comparative emptiness of the venous system. Or, lastly, the impediment may consist in an obliteration of one or more of the great venous trunks; as the femoral vein, the external iliacs, the inferior vena cava, the vena portæ, the vena cava hepatica, the jugulars, the vena azygos, and the superior vena cava.

When the impediment to venous absorption is some disease of the heart, as ossification of the valves, contraction of the orifice of the right ventricle, &c., our art is not able to do much. But, if the age and strength of the patient will permit, we may draw a little blood from the arm, thereby lessening the quantity which the heart will have to receive and transmit, and also encouraging absorption, which, as you have seen in M. Magendie's experiments, always takes place more rapidly when the quantity of blood in the circulating system is less. We may also administer digitalis partly to quiet the action of the heart, and partly to increase the flow of urine. We may administer mild purgatives, by way of

carrying off a portion, at least, of the fluid which is continually entering, by the process of imbibition, into the intestines. We must also allow only mild and mucilaginous diet, in order partly to avoid exciting the heart, and partly to keep down plethora. Lastly, when the hydrothorax, the ascites, or the anasarca, has increased to a certain degree so as to be nearly unbearable, we may perform the operation of *paracentesis thoracis* or *paracentesis abdominis*, in the first two cases, or we may scarify or puncture the limbs in the case of anasarca.

When the impediment consists in an enlargement of any of the abdominal viscera, which press upon one or more of the venous trunks in the abdomen, as in many of the species of physconia, we must endeavour to cure the enlarged viscus; for which purpose the various preparations of iodine offer us the fairest chance. In the mean time we must palliate the dropsical symptoms as we best can. In the case of an aneurysm of the aorta, I am afraid little or nothing can be done. In the case of pregnancy you must bandage up the lower extremities, keep the bowels open, and wait patiently for a happy delivery. In the case of an ascites, which produces anasarca by pressing upon, and impeding the circulation in, the vena portæ, the vena cava inferior, the external iliacs, all I can say is, that you must endeavour to cure both kinds of dropsy as rapidly as you can. If you cure the ascites the cure of the anasarca will usually follow.

With regard to the torpor of the liver, or its enlarged or indurated state, I believe, if you examine the alvine evacuations of dropsical patients, as you see me do every morning in this Infirmary, you will find in nineteen cases out of twenty of *passive* dropsy, some derangement of the liver, as indicated by the appearance of the stools. The stools will either be clay-coloured, or green, or black; to use a common phrase, as black as my hat. Now, how is the liver to be restored to its proper action, so as to allow a free passage for the blood to the heart? For, you know that all the veins of the digestive organs, all the veins of the peritoneum covering the intestines and forming the mesentery, unite to constitute one large trunk called the vena portæ, which ramifies in ten thousand branches through the liver; those branches again re-uniting to form one trunk, the vena cava hepatica, through which all the blood previously sent by the vena portæ to the liver must go, in order to be delivered to the heart. But, there can be no doubt that the ultimate venous branches, which form, by their union, the vena portæ, are the agents of absorption for the fluid which moistens the serous membrane surrounding the cavity of the peritoneum. How, then, to induce the liver to act? There can be no doubt, and experience has proved it to us, that in the great majority of cases, nothing has so decided an effect in rousing the liver to its duty, as the administration of small but frequent doses of mercury, whether in

the form of the mercurial pill, or in that of calomel. You see me give it every day to dropsical patients, and with very considerable success. Along with mercury, you may give mild diuretics, as digitalis, carbonate of potass, acetate of potass, supertartrate of potass, spirit of nitric ether. You may also administer gentle tonics, as calumba, cinchona-bark, gentian-root, sulphate of quinine. If the patient appear to be sinking, you must endeavour to support him by means of gin or brandy, wine, ale, or porter, subcarbonate of ammonia, camphor, ether, opium, aromatic spirit of ammonia, compound spirit of lavender, and the allowance of the most nourishing articles of diet, especially very good beef-tea. And, although the torpor of the liver may have come on from gin-drinking, yet you will not find that an allowance of wine or spirit and water, or of ale or porter, while the patient is taking mercury, will at all impede the restoration of the liver to its healthy action.

But, suppose the patient has taken as much mercury as the system will well bear, suppose the mouth is sore, and the old decayed teeth are dropping out, and the liver is still not restored to its healthy action; well, then I have a secret to tell you, or rather I told it you whilst we were treating Margaret Kearney. A secret, I call it, although it is really no secret; for I have told it every where. A respectable medical man should, indeed, have no secrets,—because he who knows of a means of doing

good to his fellow-creatures, and does not disclose it, can be nothing but a genuine object of contempt. The secret, however, as I call it, is this, that an aloetic pill taken in a small dose frequently repeated through the day, has in a period of time, longer or shorter as the case may prove, the same effect in restoring the liver to a healthy action as is produced by mercury. This fact depends upon the principle which I have already explained to you that irritation at one extremity of a canal in the living body excites action at the other extremity.

As to obstruction of the passage of blood through the veins, arising from plethora,—that plethora depending on diminished secretion of urine,—I have to say that this generally depends upon disease of the kidneys; but, if you expect that this disease of the kidneys will be infallibly pointed out by the albuminous state of the urine, you will be much disappointed. In this case you must, if the patient's strength will allow, apply cupping-glasses or leeches over the kidneys. You must administer diuretics, and if these fail, drastic purgatives, as elaterium, so that you may bring away the fluid by the intestines, and by any means lessen the excessive quantity of blood in the circulating system.

With regard to the obliteration of the venous trunks as a cause of *passive* dropsy, Dr. Bouillaud has, by numerous observations, fully proved its reality; and he has also showed that in a great number of cases, this obliteration was produced by

sanguineous concretions or coagulable lymph effused in the body of the veins. He made these observations immediately after M. Magendie had published his new views of absorption.

Dr. Bouillaud reported three cases of dropsy of the lower extremities with obliteration of the principal veins of those members. He found also dropsy of the upper extremities when their principal veins were obliterated.

If the obliteration of the veins were confined to one member, then that member alone was affected with edema; but if the obliteration took place in the veins of two members, whether upper or lower, then both those members were affected. If the obliteration took place in the inferior vena cava, then the dropsy was confined to the parts from which the inferior vena cava receives its branches; and when the superior vena cava was obliterated, then the dropsy affected only those parts of which the venous system empties itself into the superior vena cava. So that it became impossible not to admit that dropsies were occasioned by an obstacle to venous circulation, and were not the result of *debility*.*

Dr. Bouillaud also reported three cases of *passive* dropsy of the belly,—ascites,—in which there existed an obliteration of the vena portæ, that is to say, of the venous passage which performs the same part in the absorption and carrying away of the abdominal

* J. Bouillaud. Art. Hydropisie. Dict. de Med. Tome xmc.

serum, as is performed by the brachial and femoral veins, and their co-existent veins, in the absorption and carrying away of the serum of the cellular membrane of the limbs.

Dr. Reynaud has published* several cases of obliteration of the iliac veins, and of the inferior vena cava, in which there was manifested a dropsy of the lower extremities. He has also published three cases of ascites arising from obliteration of the vena portæ.

Dr. Tonnellé has published † six cases of obliteration of the venous sinuses of the dura mater, with serous effusion in the cavity of the arachnoidea.

With regard to the cure of *passive* dropsy arising from obliteration of the veins, I believe I may say it is entirely hopeless, any further than as Nature may choose to take it upon herself; and she certainly sometimes does wonders in this way. In the case of a woman whose left iliac vein was obliterated, a very large vein coming from the femoral veins of the same side traversed the abdominal wall, making several turns, as high up as the umbilicus, it then bent itself in order to go down and enter the femoral vein of the other side. Single at its origin it divided itself into two or three branches, which soon reunited to form one trunk towards its termination. When the patient stood up, this vein was of an enormous

* Journal hebdomadaire de médecine et de chirurgie.

† Journal hebdomadaire de méd. et de chir. Tome v.

volume, and equalled the size of the little finger. By the help of this anastomic circulation, the blood brought by the left femoral vein was carried almost entirely into the right femoral vein. At the same time as this anastomic venous circulation was established, a dropsy of the left inferior extremity became gradually dissipated. This is only a specimen of spontaneous cure; there are many other instances on record equally curious.

With regard to the second species of dropsy, the *active*, the *hypercrinie* of Andral, the hydrophlegmasia of other authors, it appears to have its seat in the arterial system, and to approach very nearly in its nature to inflammation of the part in which it is situated. Its character seems to lie about half way between the regular normal state of the secretions, and the secretion of inflammation. In the secretion of parts in their healthy state, no more is thrown out by the arterial branches than is taken up by the venous branches. In the secretion of inflammation there is thrown out a quantity of coagulable lymph, consisting, I dare say, almost entirely of fibrine. In the secretion of *active* dropsy, I am not aware whether or not any chemical examination of the fluid has been made. There is this difference, however, that it is deposited more copiously than in the regular, healthy state of the organ.

I hope you will not be critical with me, if I say something of the treatment of *active* dropsy, as I have already done of *passive* dropsy, before entering

into the symptoms and causes of the disease. I repeat I am not giving a regular treatise. Mine are merely Clinical Lectures.

In *active* dropsy, if the patient be young and plethoric, you must take blood from the arm. You must apply leeches locally. You must use the warm bath, blisters, diaphoretics, purgatives, and energetic diuretics. You must also employ mercurial preparations, as the action of mercury upon the system, has the same power in removing the hydro-phlegmasia, or *active* dropsy of serous or cellular membrane, as I have already intimated to you that it possesses in removing inflammation of those membranes. Above all things the diet must be the lowest possible.

The nature of the *mixed* dropsy may be understood from what has been said of the other two kinds.

The symptoms of *passive* dropsies are slowly developed. They are for the most part the result of the compression which the serous collection exerts as a foreign body upon the surrounding parts. The symptoms of *active* dropsies make on the contrary a very rapid advance, and, in this kind, besides the phenomena resulting from the pressure of the effused fluid, we observe a variety of symptoms which denote an increase of vital power and action.

With respect to the causes of *passive* dropsy, I have already said nearly enough; but I omitted to mention that one of the causes of obliteration or obstruction of the veins is *phlebitis*, or inflammation

of a vein, and that it produces its effect by causing sanguineous concretions or effusion of fibrine in the trunks of the veins. As to the causes of *active* dropsies, a sanguine or plethoric constitution, with the use of such articles of diet as are likely to produce the plethoric state, are to be reckoned among the predisposing causes. With regard to the occasional causes, the most frequent is the operation of cold and damp, especially when suddenly applied to a person in a state of perspiration, whether in consequence of violent exercise, or of the prolonged heat of the weather. Stout men, after forced marches, exposed to causes capable of abruptly suppressing perspiration, fall suddenly into the *active* kind of dropsy. Soldiers fording rivers whilst in a state of perspiration, are particularly liable to it.

Cellular dropsy, or anasarca, known also by the name of leucophlegmasia, arises from an anormal accumulation of serum in the cellular membrane of the limbs and trunk. When the quantity of serum is considerable it produces an augmentation sometimes enormous of the size of the body. The tumefied parts become hard and resisting: and if pressed by the finger they retain the impression a considerable time. This is called pitting upon pressure. In general the edema is greater in the parts which hang down than in any other parts. The skin of persons affected with anasarca becomes whiter, and as the edema proceeds, this membrane

more and more distended, grows thinner, and becomes shining. The distension may at last produce a rupture of the skin, by which the serum of the neighbouring parts will escape. In common cases of anasarca the serum presents the same physical and chemical properties as it possesses in the healthy state.

Partial anasarca is much more common than general, especially when this disease does not arise from any impediment to the circulation either in the heart, or in the great venous trunks. In a large number of cases we meet with edema of the lower extremities only, and even in those cases in which the serous edema has become general, we find that it began in the lower extremities.

The causes of *active* anasarca are such as have been already mentioned as the causes of *active* dropsy; with the addition that it frequently attacks individuals who, convalescent from an eruptive disease, as the measles or scarlet fever, expose themselves imprudently to the influence of a cold and damp atmosphere.

The causes of *passive* anasarca have been already indicated.

As to the prognostic of *active* anasarca, it is good; of *passive* anasarca, without ascites, it is bad; of *passive* anasarca with ascites, and without any disease of the heart, it is not so bad.

The mode of treating anasarca does not differ

from that of treating dropsy in general; with this difference, however, that punctures and scarifications may be employed to give exit to the serum, and compressive bandages to support the tumid limb. We must recollect, however, that the incisions sometimes give rise to ulcers which will not heal, to erysipelatous inflammations, and even to true gangrene. The making of punctures with sharp needles is the best way of avoiding these unpleasant consequences; but sometimes it is necessary to run all risks for the sake of immediate relief.

In the *hydrothorax*, hydrops thoracis, or dropsy of the chest, the affection sometimes arises from hyper-secretion of the pleura, which constitutes *active* hydrothorax; and sometimes it arises from a diminution of venous absorption, which constitutes *passive* hydrothorax.

Active hydrothorax is not easily distinguishable from a slight acute pleurisy; and frequently a chronic pleurisy leaves behind it a serous effusion which differs in no respect from hydrothorax not preceded by inflammation.

Hydrothorax ordinarily occupies only one side of the chest. The quantity of the effused fluid is very variable; it has reached twelve pounds. The lung corresponding to the effusion is compressed, and thrust towards the vertebral column and the top of the thorax, whilst the diaphragm, with the liver or the spleen, according to the side affected are pushed

downwards. When the effusion occupies the left side of the chest, if it is very abundant, it throws the heart towards the right side.

The causes of hydrothorax are those of dropsy in general. So that *active* hydrothorax may be the consequence of a sudden suppression of the perspiration or of some other secretion. *Passive* hydrothorax is met with in persons affected with a disease of the heart or of the large vessels, capable of opposing an impediment to the free circulation of the blood.

With regard to the diagnosis it may be remarked that patients experience a difficulty of respiration proportioned to the quantity of effused fluid. They lie generally upon the diseased side in order to leave the healthy side at liberty for respiration. When the hydrothorax is double, the respiration is gasping; the patients remain sitting upright in bed; they employ most energetically all the respiratory muscles; and their faces exhibit an extreme anxiety, with all the symptoms of impeded respiration, as a livid expression of the countenance, purple colour of the lips. On percussion of the chest the sound produced is dull; and the respiration is inaudible, except at the vertebral column. If the effusion be not very abundant, egophony is perceived by placing the stethoscope along the posterior border of the scapula, towards its inferior angle.

The treatment of hydrothorax either *active* or

passive does not differ from the general principles already laid down for the treatment of *active* or *passive* dropsy in any other part, except in this respect that the water may be evacuated by the operation of *paracentesis* thoracis; an operation, however, which is seldom employed.

Ascites, or hydrops abdominis, consists in an anormal accumulation of serum in the peritoneal cavity. The quantity of fluid effused varies from a few ounces to an indefinite number of pints. This fluid is transparent, colourless, like water, or sometimes it has a slight yellowish or greenish tint.

The presence of an enormous quantity of serum in the abdominal cavity, at the same time that it distends the anterior and lateral walls of that cavity, necessarily compresses the various parts therein contained, pushes the intestines towards the diaphragm, and thereby opposes the free performance of the function of respiration.

The size of the abdomen is increased in proportion to the quantity of serum contained in its cavity. The distension of its walls is progressive and begins generally at the lowest part; and when the quantity of serum is very great, the upper part, distended as well as the lower, projects a considerable way in advance of the lower part of the chest. Upon holding one hand upon one side of the abdomen, and striking the other side with the other hand, a distinct sensation of fluctuation will be perceived.

The parietes of the abdomen appear stretched and are covered with turgid veins. The liquid changes its place when the patient changes his position.

In the *passive* ascites, pressure and percussion of the belly give no pain; neither is there perceived any augmentation of heat. Patients complain of nothing but the feeling of an inconvenient weight in the abdomen. In the *active* ascites, on the contrary, the belly, without being exactly painful, becomes both more sensitive, and much hotter than in the natural state.

The *occasional* causes of *active* ascites are the same as those already mentioned in speaking of anasarca and hydrothorax. As for *passive* ascites it used to be the fashion, and it no doubt is still the fashion, to assign a great number of occasional causes which were considered sufficient to *debilitate* the lymphatic vessels, as the *atony* of those vessels, or their *debility* was considered as the *proximate* cause of the disease. But it is time to have done with so unmeaning an hypothesis as *debility*, when we see patients die daily of debility without any symptoms of ascites, or of any other species of dropsy: as in consumptions, gastro-enteritis, fevers, in which there is sufficient debility, but with an evident increase instead of a deficiency of absorption. The *proximate* cause of *passive* ascites, is, like the proximate cause of *passive* general dropsy, the non-absorbing of the veins; the cause of this is some interruption to the circulation

of blood along the veins ; the cause of this I have already dwelt upon.

The treatment of ascites, both *active* and *passive*, does not differ much from the treatment already recommended for general dropsy, with the two following exceptions. 1st. When the tumour of the abdomen has become excessive, the operation of *paracentesis abdominis* may be performed with great advantage. 2ndly. As ascites of the *passive* kind depends more than any other form of dropsy upon derangement of the liver, so it will require more than any other form of dropsy, the administration of those medicines which are known to possess the power of removing obstruction of the liver, by restoring it to the performance of its healthy functions.

CASE LXXVII.—Hydrops. Ascites atque Anasarca ; i. e. Hydrops abdominis et cellularis. Dropsy of the belly and of the limbs. Passive.

1st July, 1833.

Margaret Kearney, aged 46, married, takes care of her house, has been ill for four months. Tongue is foul. Has a bad taste in her mouth. Bowels costive. Voids a very small quantity of urine. Belly is swelled, with a distinct fluctuation. There is pain over the hepatic region, and the liver seems enlarged. The legs and feet are swelled, and pit upon pressure. She has some difficulty in breathing, and a short cough. Pulse is rapid, small, and weak. No catamenia for four months past.

R. Tincturæ Digitalis m.x.

Misturæ Acidi Sulphurici f̄jss. Misc.

Fiat haustus quater quotidie sumendus.

To have rice diet.

2nd. The draughts make her sick. The bowels have been open.

To omit the draughts.

To take half a grain of the dried leaves of *Digitalis* in a pill three times a day

3rd. To have half an ounce of castor-oil.

4th. Bowels open with the castor-oil. Makes rather more water.

7th. Is much improved. Voids rather more urine.

9th. Is rather worse this morning. Voids rather less water. Feels faint. Pulse quick and feeble. Tongue clean but red. Belly and legs still swelled. Bowels open. Stools light clay-coloured and fluid.

10th. Has still tenderness over the hepatic region. Pulse very feeble.

To omit the *Digitalis* pills.

To take one grain of calomel in the form of pill night and morning.

To have two ounces of gin in the course of twenty-four hours.

11th. Makes more water: but the swelling and tenderness continue.

13th. Mouth is rather sore. Bowels open. Stools still clay-coloured. Urine more abundant. Pulse small and weak. Swelling is not diminished. Still feels tenderness at the hepatic region.

16th. Gums are sore. Tongue clean but red. No appetite. Bowels open. Stools perfectly colourless. Soreness over the right hypochondrium continues. Voids less urine. Swelling undiminished.

Cupping-glasses to the region of the liver so as to draw four ounces of blood.

17th. Pain considerably diminished since the application of the cupping-glasses. Not so much dyspnea. Voids more urine. Swelling much less. Bowels open. Stools unchanged. Pulse 90, weak. Mouth very sore; two unsound teeth have dropped out.

To omit the calomel pills.

To continue the gin.

To take two grains of the *Pilula Aloës cum Myrrhâ* every hour whilst waking.

18th. Bowels open, but not purged. Stools still light-coloured. Urine more plentiful. Swelling diminished. Breathing better.

19th. Bowels well opened by the pills. Stools still light.

20th. Was much purged in the night. Stools are darker. The dyspnea is so urgent that it prevents her from remaining for any length of time in a recumbent posture. Voids more urine.

21st. Is still much troubled with dyspnea, particularly at night. Urine more plentiful; belly less swelled. Bowels very open; stools more natural in colour. Tongue clean. Pulse feeble, but not quick.

22nd. Had a very good night and feels better this morning. The dyspnea is much less. The urine is more plentiful; the swelling is diminished. Bowels purged; stools as before. Pulse stronger.

24th. Bowels still purged; stools more natural. Urine more plentiful. Swelling much less. On the whole much improved.

℞ *Potassæ Carbonatis* ℥ij.

Tincturæ aromaticæ f℥iv.

Infusi Calumbæ f℥vss. *Misce.*

Sumatur f℥jss. *quater quotidie.*

To continue the pills and gin.

26th. The swelling is nearly gone.

28th. Passed a restless night. Felt sick. Was much purged. Stools still clay-coloured.

To have the gin increased to four ounces daily.

29th. Feels rather better. Urine more abundant. Swelling diminished.

31st. Pulse 100, small and feeble. Tongue clean. Appetite not improved; she always swells more after eating. Cough is troublesome. Breathing is rather better. Urine more plentiful. Stools more bilious.

1st August. Urine continues plentiful. Swelling diminished.

Complains of want of sleep.

R Liquoris Morphinae Acetatis m.vii.

Misturae Ammoniae Acetatis f̄ʒj. Misc.

Fiat haustus horâ somni sumendus.

2nd. Stools more natural.

3rd. Feels better. Bowels open. Feces more bilious.

4th. Sleeps well. Bowels open. Feces more bilious.

6th. Bowels continue purged. Feces more bilious. Pulse

105 and small. She feels very weak.

7th. Feels better. Pulse 120, feeble. Feces more bilious.

8th. Continues to improve. Feces quite natural. Pulse 120, feeble. Very little swelling.

9th. Still improving. Has very little swelling. Pulse weak.

No pain. Feces natural.

To take porter instead of gin.

10th. Feels better; but urine is rather scanty. Swelling almost entirely gone. Feces continue better. Porter does not agree with her.

To recur to gin as before.

11th. Urine rather scanty.

12th. Urine still scanty. Bowels continue purged. Stools light-coloured. Pulse 120, weak. Tongue clean, but appetite poor. Sleeps better.

13th. Feels better. Urine still scanty; but she has very little swelling. Pulse 120, very weak. Feces more bilious.

14th. Is improving. No swelling. Feces natural.

15th. Has some pain and swelling in the right hand.

To have three leeches applied to the hand.

16th. The hand is better. Urine is more plentiful. She has no swelling. The tongue is clean. The appetite is improved. The bowels are regular. The feces are bilious. She is free from pain.

19th. Discharged quite cured.

OBSERVATIONS.

This, gentlemen, was a case of passive dropsy from obstruction of the liver. As soon as we procured bilious stools, the urine became more plentiful, and the swellings disappeared. You find it reported towards the conclusion of the case that the urine became more scanty; but I apprehend that this remark originated in a slight mistake. As she was taking a small aloes pill every hour whilst waking, it is most likely that she voided a great part of her urine with her stools which were numerous, and that therefore the quantity of her urine was not fully estimated. In this case you have seen put into practice the secret of which I told you in my lecture upon dropsy in general. You saw that this woman took calomel until her mouth was very sore, and two unsound teeth dropped out; yet her stools continued clay-coloured. I omitted the calomel, and gave her a small aloetic pill every hour whilst waking; knowing that, according to theory, the passing of this pill so frequently over the mouth of the ductus communis choledochus, must sooner or later rouse the liver to action, and consequently to the regular secretion of bile. For a week or two I was disappointed; but I still persevered, saying that the plan was rational. When our plans are rational, we ought to persevere: we cannot always command success; we must sometimes be content if we deserve it. At last the wished for bile appeared; at which I

honestly confess I felt more delight than I believe a sportsman does upon finding his game. "Here is the triumph of theory!" I said to Mr. Lloyd. "Sir," replied he, "I think it is the triumph of practice." He was right; and we were both right. Good theory, and good practice, are one and indivisible. They are in fact the same thing. As long as you practise, gentlemen, always consider the why, and the wherefore. Ask yourselves what you intend to accomplish, what is your object, and then meditate most earnestly on what may be the rational mode of attaining that object. You had better, however, keep your theories to yourself, unless, like me at this moment, you have a public duty to perform.

CASE LXXVIII.—Hydrops. Ascites atque Anasarca; i. e. Hydrops abdominis et cellularis. Dropsy of the belly and of the limbs. Passive.

15th July, 1833.

Nancy Holden, aged 30 years, married, and takes care of her family, has felt ill since her last confinement by childbirth six months ago. The skin acquired a yellow tinge; she felt pain in the right side and in the right shoulder. She soon after perceived a swelling in her legs and abdomen. The bowels are very irregular. Urine is much diminished. Appetite is impaired, and a great degree of languor and debility has come on. These symptoms have much increased of late. She has at present a troublesome cough and spitting. The expectoration is muco-purulent, and slightly bloody. She has great oppression in breathing. Has night-sweats. Pulse is small and rapid. Tongue moist, but furred. Bad taste. Very little appetite. Bowels costive. Belly

is much swelled. Legs extremely edematous. Liver hard and painful on pressure. Pain in the back. Urine very scanty. Wind troublesome. Feels very weak, and occasionally sick. The skin is yellow.

15th. 7 P. M. Dyspnea great. Pain in the right hypochondrium undiminished.

To have ten leeches applied to the right side.

Common poultices afterwards.

To have an opening powder.

16th. Pain relieved by the leeches. Pulse weak and fluttering. Had much coughing and spitting during the night. Bowels opened by the powder. Stools of a light clay colour.

To take one grain of calomel in the form of a pill night and morning.

17th. Urine still scanty. Bowels open. Stools loose and clay-coloured. Pulse 120, weak.

To continue the calomel.

To have four ounces of gin daily.

℞ Ammoniae Subcarbonatis,

Camphoræ, āā gr.v. fiat bolus s:a: tertiâ quâque horâ sumendus.

18th. *Manè*. Pulse 140, feeble. Cough and spitting not abated. Tongue dry. Appetite not improved. Bowels open: stools still clay-coloured. Urine not increased. Swelling undiminished. No pain. Less dyspnea.

To omit the calomel pill.

To take the mercurial pill three times a day.

℞ Potassæ Carbonatis ʒij.

Tincturæ aromaticæ fʒiv.

Infusi Calumbæ ʒvss. Misce.

Sumatur fʒjss. quater quotidie.

18th. *Vesperè*. Dyspnea much increased. Pulse very low. Feels much worse.

To omit the mercurial pills, the mixture, and the gin.

To take an ounce and a half of the *Mistura Aetheris cum Opio*, every three hours.

To have an ounce of French brandy about every hour, except when asleep.

19th. Passed a very bad night, but feels a little relieved this morning. Pulse rapid and fluttering. Swelling of the belly rather less, of the legs the same. Urine still very scanty and high-coloured. Tongue nearly clean. Feels no inclination to eat. Bowels moved once since yesterday. Stools nearly colourless. Skin cold and clammy. Sweating incessant. Does not complain of pain or soreness.

To have her hips and ankles scarified.

To be allowed as much good beef-tea as she can take.

20th. Scarifications produced a plentiful discharge of fluid. She feels much easier. Passed a good night. Bowels open; stools rather darker. Pulse weak and fluttering. Tongue furred. No appetite. Urine more abundant. Swelling some little less.

21st. Thighs and legs continue to discharge fluid, and appear less swelled. Abdomen is also less swelled. Urine more plentiful. Stools rather darker. Feels no pain nor soreness. Cough and spitting are better. Feels less dyspnea, but cannot lie in the recumbent posture. She frequently starts up in bed from alarming dreams. Pulse 140, feeble. Tongue less furred. Appetite rather better.

22nd. Feels comfortable this morning. Had a very good night. Dyspnea is less urgent. Urine is more plentiful. Ascites and anasarca are less considerable. No pain. Cough better. Bowels not open.

To have two drachms of castor-oil.

23rd. Bowels freely moved by the oil. Stools rather darker. Pulse 130, very feeble. Skin warmer. Cough troublesome. Dyspnea less. Ascites less. Edema of the lower extremities diminished. Thighs and legs continue to discharge. Urine more plentiful.

She continues to take the bolusses of ammonia and camphor; the *mistura ætheris cum opio*; the brandy and the beef-tea.

24th. Passed a very good night. Has had very little cough or dyspnea. Pulse small, thready, and tremulous. Bowels open. Stools a little darker. No pain. Appetite rather improved.

Urine increases in quantity. Swelling both of the abdomen and legs very much diminished.

25th. *Vesperè*. Pulse hardly perceptible. Skin cold and clammy. Feet cold. Much colliquative sweating.

To take the *mistura ætheris cum opio* every two hours; to have more brandy given to her.

26th. By giving her brandy copiously, and by applying bottles of hot water to her extremities, she rallied, and passed a pretty comfortable night.

26th. *Vesperè*. Dyspnea not so bad. Pulse more appreciable, but still fluttering. Skin still cold and clammy. Feet warm. Bowels costive. Tongue furred. Takes the brandy with some difficulty. Hips and ankles, where the scarifications were made, rather inflamed.

To have a spirit-wash applied.

27th. Breathing very difficult. No pain. Pulse hardly perceptible. Has *subsultus tendinum*. Extremities are cold. Appears to be in *articulo mortis*.

27th. *Vesperè*. Dead.

28th. Autopsy, in fifteen hours after death. There were very numerous and strong adhesions of the pleura pulmonalis to the pleura costalis and to the pleura diaphragmatica. The lungs exhibited a considerable appearance of congestion; they were otherwise healthy; no tubercles; no abscesses. There was about an ounce and a half of fluid in the pericardium. The heart was perfectly healthy.

The liver was of the natural size; it presented a very mottled appearance; in other respects it seemed healthy.

The bile in the gall-bladder was remarkably dark, and of a thick consistence. About a pint of fluid was contained in the cavity of the abdomen. The serous coat of the alimentary canal was perfectly healthy. In the mucous coat of the stomach the blood-vessels were in a state of great congestion. In the mucous coat of the duodenum there was also great congestion of the blood-vessels, with very considerable marks of inflammation. At the termination of the ileum there was much inflammation in the

mucous membrane, with two or three ulcers, one nearly through the whole of the coats. Throughout the whole of the colon the mucous membrane was much inflamed. The feces contained in the colon were of a very light clay colour. The kidneys were healthy.

OBSERVATIONS.

This was a case of gastro-enteritis, complicated with *passive* dropsy of the belly, and of the lower extremities, arising from obstruction of the liver. The gastro-enteritis, I apprehend, it was, that prevented her cure; depriving her of the strength requisite to bear the mercurial medicines, and the purgatives, requisite to remove the obstruction of the liver. It was considered a hopeless case from the first. After the ample lecture I have given you upon dropsy in general, it will not be necessary to detain you long over this case. The liver, it appeared upon inspection, was tolerably healthy in appearance; but there can be no doubt that its function was diseased, both from the appearance of the stools, whilst the patient was living, and from the appearance of the feces found in her colon after death. And that the existence of the dropsy depended upon the diseased function of the liver there can, I think, be likewise no doubt. Had it not been for the complication with gastro-enteritis, I think we should have cured her.

CASE LXXIX.—Hydrops. Ascites atque Anasarca; i. e. Hydrops abdominis et cellularis. Dropsy of the belly and of the limbs. Passive.

22nd July, 1833.

Maria Thornton, married, aged 42, attends her family; says her complaint came on with a sense of great debility and wasting away. She became much emaciated. Her breathing became difficult. She was swelled in the abdomen and legs, and was troubled with cough, spitting, and night sweats. Pulse is 90, regular, but feeble. She has occasional palpitations of the heart, and frequently starts up in bed in the midst of dreaming. Tongue coated with a brown fur. Taste bad. Appetite good. Bowels regular. No pain or soreness on pressure. No tenderness over the hepatic region. Stools natural. Urine scanty.

℞ Tincturæ Digitalis fʒj.

Misturæ Ammoniacæ Acetatis fʒvi. Misce.

Sumatur fʒj. quater quotidie.

To take Pilul. Digitalis cum Opio No j. every night.

23d. Passed a bad night owing to dyspnea and frequent starting. Was also troubled with palpitation and cough. Tongue slightly furred. Taste better. Appetite good. Swelling of the abdomen undiminished. Very little edema of the thighs or legs. Urine still scanty. Bowels open. Pulse less feeble.

To take the Linctus Scillæ, when the cough is troublesome.

24th. Pulse 84, regular. Tongue clean. Cough better. Bowels open. No pain. Dyspnea less urgent. Slept better. Urine still scanty. Swelling not diminished.

26th. Dyspnea and palpitation still troublesome. Cough better. Urine still scanty. Swelling undiminished. Pulse 70, full. Skin cold and clammy. Tongue furred. No pain.

27th. Swelling as before. Appetite very good. Sleeps badly. Cough urgent. Pulse 60, regular.

27th. 4 P. M. The pulse being 60, the mixture was omitted.

27th. 8 P. M. The pulse rose to 92; the mixture was repeated.

28th. Pulse 75. Breathing difficult. Cough still bad. Swelling undiminished. Skin warm. Tongue whitish.

29th. Pulse low. Cough better. Breathing less laborious. Swelling less. Tongue cleaner. Appetite good. Feces nearly perfectly black.

To take one grain of calomel in the form of pill night and morning.

31st. Urine plentiful. Swelling less. Pulse 68, regular. Breathing more free. Tongue rather white. Appetite good. Bowels open. Feces improved in colour.

1st August. Pulse slow and regular. Bowels not open to-day. Feels some pain in the right side. Continues to void plenty of urine.

2nd. Continues to complain of pain in the right side. Is otherwise better.

To have six leeches applied to the right side.

3rd. Is improving. Swelling abated. Breathing better. Less pain. Tongue clean. Appetite good. Bowels open. Stools improved.

4th. Feels much better. No pain. Urine plentiful. Pulse 70. Bowels open. Stools natural.

5th. Is improving. Urine plentiful. Has very little swelling. Pulse 72. Cough better. Breathing free. Tongue clean. Appetite good. Bowels open. Feces natural. No pain. Sleeps well.

7th. Is still improving. Pulse 70. Urine plentiful. Swelling nearly subsided. Appetite good.

9th. Complains of sickness and occasional pains in the abdomen. Pulse 72. Urine plentiful. Swelling nearly gone. Feces natural. Tongue clean.

To omit the digitalis mixture and the digitalis pill.

℞ Potassæ Carbonatis ℥ij.

Tincturæ aromaticæ f℥iv.

Infusi Calumbæ f℥vss. Miscæ.

Sumatur f℥jss. quater quotidie.

10th. Feels no sickness. Pulse 80. She is better, but continues to feel pain in the abdomen.

To have common poultices applied to the belly.

11th. Pain relieved by the poultices. Urine rather less, and high-coloured. Pulse 76. Bowels regular. Feces healthy. Tongue clean. Appetite good. Swelling much diminished.

12th. No swelling, but urine rather scanty. Abdomen tender, but less painful. Tongue clean. Appetite good. Feces natural. Pulse 68. Cough better.

To omit the calomel pill.

14th. Feels very weak, but has no swelling or pain.

16th. Is better, but feels occasional pain in the right hypochondrium. Pulse 84. Bowels regular. Feces healthy. Urine more plentiful.

To have twelve leeches to the right hypochondrium.

17th. Is free from pain. Urine plentiful. Feces healthy. No swelling.

19th. Discharged perfectly cured.

OBSERVATIONS.

In dropsy, gentlemen, always examine the patient's stools. You see that in this case we went on a week in the dark, under an idea that the stools were natural. They were then examined, found to be black, calomel was given, and in two days afterwards, the report was, "Urine plentiful:" "Feces improved in colour." What is the nature of the action in the liver which causes the feces to be black, I cannot tell. I suppose it is some morbid change which produces a greater secretion of the carbon of the blood than is natural. However this may be, you saw how soon the action of calomel produced a change in the colour of the feces, and a complete removal of the complaint. This was, in fact, a case of *passive* dropsy, arising

from obstruction to the passing of blood through the liver, and the obstruction being removed, the disease ceased. I conclude by again cautioning you, gentlemen, never to omit examining the stools of patients in cases of dropsy.

CASE LXXX.—Hydrops. Ascites; i. e. Hydrops abdominis.
Dropsy of the belly. Active.

12th August, 1833.

Mark Halkyard, a schoolboy, in the 10th year of his age, says the swelling of the belly began two months ago. Tongue clean. Appetite good. Bowels open. Urine plentiful.

To have one grain of calomel in the form of pill four times a day.

- 13th. Tumour less. General health good.
- 14th. Urine plentiful. Very little swelling.
- 16th. Is nearly quite well.
- 18th. To omit the pills.
- 19th. Discharged cured.

OBSERVATIONS.

I suppose, gentlemen, that this was a case of *active* dropsy of the belly. I think so, from its having been so speedily removed. It is the particular excellence of calomel that it is adapted to either *passive* or *active* dropsy. In the first kind it acts by its power over the liver. In the latter kind it acts as a purgative, as a diuretic, as a diaphoretic; and, more especially, by its power over the system, in removing inflammatory action, or any action or

state bordering upon inflammatory. Now, you know the *active* dropsy depends upon a state very nearly resembling inflammation, and if you bring the system in any degree under the action of mercury, the chances are, you will remove that state of the system upon which *active* dropsy depends.

CASE LXXXI.—Hydrops. Ascites atque Anasarca; i. e. Hydrops abdominis et cellularis. Dropsy of the belly and of the limbs. Passive.

29th July, 1833.

James Cocker, a widower, aged 41 years, a hand-loom-weaver, says that four months ago he perceived a decline in his general health; had a gathering on the foot which is not yet well. Has been troubled with debility and loss of appetite. On his admission he presented the following symptoms: the skin sallow; there were several cicatrices of old scrofulous abscesses in the neck; the cellular membrane throughout the body appeared to be loaded with serum; the belly was swelled; the breathing oppressed and laborious; a troublesome cough; pulse small and quick. Tongue moist, rather furred in the centre; bowels regular, appetite bad; urine scanty; pain over the hepatic region and in the right shoulder.

To take one grain of calomel in the form of pill, night and morning.

℞ Tincturæ Digitalis fʒj.

Misturæ Camphoræ fʒvi. Miscæ.

Sumatur fʒjss. quater in die.

To lie in bed; and to use rice diet.

30th. No change. Stools clay-coloured.

31st. Pulse 100, small and feeble. Voids more urine. Stools clay-coloured.

1st August. Continues to void more urine. Still complains of pain in the right side and shoulder. Sleeps ill. Bowels open; stools not darker.

To have a blister applied to the right side.

2nd. Pulse slower, feeble. Less pain; dyspnea much relieved. Urine somewhat increased. Stools still clay-coloured.

To omit the digitalis mixture, and the calomel pills.

To take a mercurial pill night and morning.

℞ Potassæ Carbonatis ʒij.

Tincturæ aromaticæ fʒiv.

Infusi Calumbæ fʒvss. Misce.

Sumatur fʒjss. quater quotidie.

To have good beef-tea.

4th. Feels rather worse this morning. Has a very bad taste in his mouth. Tongue is furred. Much pain in the hepatic region. Pulse 80, very small and feeble. Urine rather more plentiful. Bowels open; stools clay-coloured.

5th. Passed a better night. Dyspnea still troublesome. Pain in the side continues. Urine very scanty and pale. Tongue furred. Appetite bad. Pulse 84, small. Skin hot. Much thirst. Swelling not diminished. Feces clay-coloured.

6th. Passed a restless night. Feels very unwell this morning. Pulse 100, very small. Urine scanty. Feces not improved.

℞ Ammoniæ Subcarbonatis,

Camphoræ, āā gr.v. Misce.

Fiat bolus quartâ quâque horâ sumendus.

7th. Feels better. Tongue cleaner. Breathing more free. Cough less troublesome. Swelling not much abated. Urine still scanty. Pulse 96, very small and feeble. Feces still clay-coloured.

8th. Feels easier. Has less pain in his side. Dyspnea much relieved. Tongue cleaner. Appetite better. Pulse 80, still small and weak. Urine more plentiful. Feces clay-coloured.

9th. Pulse 72, stronger, and more distinct. Tongue cleaner. Urine still scanty. Swelling not much decreased. Feces clay-coloured.

To omit the boluses.

To add to the Mixture of Calumba, one fluid drachm of Tincture of Digitalis.

10th. Pulse 80, and small. Urine more plentiful; feels easier, but the swelling is not abated. Stools rather more bilious.

11th. Pulse 76, very low. Feels sick. Dyspnea less. Pain in the side continues.

To omit the Tincture of Digitalis in the mixture.

To resume the boluses of Ammonia and Camphor.

To take the mercurial pill once a day only.

12th. Pulse 80, feeble. Pain rather less. Bowels costive. Urine scanty.

To have four ounces of gin daily.

13th. Pulse 112. Bowels open. Feces clay-coloured. Urine rather more plentiful.

To omit the boluses.

R Confectionis Ferri tartarizati ʒj.

Sumantur ʒij. quater quotidie.

14th. Slept better. Pulse 80. Urine more plentiful. Swelling rather diminished. Feces clay-coloured.

15th. Pulse 108. Tongue cleaner but red. Urine much the same. Has less pain. Dyspnea still urgent. Stools more bilious.

To have scarifications made in his hips and ankles.

16th. Lower extremities have discharged freely. Urine increased. Swelling somewhat diminished. Tongue cleaner. Bowels costive. Pulse 92, fuller.

To have half an ounce of castor-oil immediately.

To increase the gin to eight ounces daily.

17th. Pulse 96. Tongue cleaner. Bowels well opened. Feces more bilious. Still complains of occasional pain in the side and shoulder. Urine scanty. Legs continue to discharge and are diminished in size.

19th. Pulse 98. Breathing still difficult, but less so than formerly. Tongue cleaner. Appetite slight. Urine somewhat increased. Swelling much the same. Feces clay-coloured.

To omit the confection.

To take three grains of the *Pilula Aloës cum Sapone* six times a day.

R *Potassæ Carbonatis* ʒij.

Misturæ Cinchonæ fʒvi. *Misce.*

Sumatur fʒjss. *quater quotidie.*

20th. Pulse 112, feeble. Breathing still occasionally interrupted. Tongue dry and furred. Feels very thirsty. No appetite. Bowels have been freely opened. Feces much the same. Urine scanty. Swelling some little diminished.

21st. Bowels loose. Feces bilious. Complains of much pain in the right hypochondrium. It is tender on pressure. Pulse 120. Feels occasionally very cold. Urine very scanty. Swelling the same.

To omit the pills and the mixture.

To have six leeches to the right hepatic region.

R *Tincturæ Opii* fʒj.

Spiritûs Lavandulæ compositi fʒij.

Misturæ Cretæ fʒvss. *Misce.*

Sumatur fʒjss. *quater quotidie.*

22nd. Has not been purged since the last mixture was taken. Urine rather less in quantity. Swelling undiminished. Feels easier. Slept better. Less pain. Pulse 104. Skin hot. Tongue dry. Much thirst.

To take twenty grains of sulphate of zinc as an emetic.

23rd. Vomited several times after the emetic. Passed a bad night. Complains of much pain and soreness in the right side. Pulse 140, small and rapid. Tongue dry, streaked with red. Urine somewhat increased. Swelling the same.

To omit the mixture.

To take of the *Mistura Aetheris cum Opio* fʒj. every three hours.

R *Ammoniæ Subcarbonatis,*

Camphoræ, āā *gr.v.*

Confectionis Rosæ caninæ q. s. *ut fiat bolus tertiâ quâque horâ sumendus.*

24th. Has continued to sink since last night.

24th. 9 P. M. Died at half-past eight this evening.

The surviving friends would not allow an inspection of the body after death.

CASE LXXXII.—Hydrops. Anasarca; i. e. Hydrops cellularis. Cellular dropsy of the lower extremities. Active.

12th August, 1833.

Samuel Fielding, a widower, works in a cotton-factory, aged 55, says that he caught cold two months ago. Had a cough and shortness of breath, pain in the chest, palpitation, and swelling of the legs. When admitted did not complain of pain except a little in his legs, which are exceedingly edematous. No swelling any where else. Very little cough. Breathing free. Tongue rather white. Appetite not very good. Bowels regular. Urine plentiful. Pulse intermittent. No palpitation. Has occasional pain in his left arm.

To take one mercurial pill night and morning.

R Ammoniæ Subcarbonatis,

Camphoræ, āā gr.v.

Confectionis Rosæ caninæ q. s. ut fiat bolus quater quotidie sumendus.

To take two ounces of the Mistura Cinchonæ four times a day.

14th. Urine very plentiful. Legs nearly free from swelling. Pulse still intermittent.

15th. Still improving. Makes plentifully of urine. Swelling very slight.

16th. Legs sore, but very little swelled.

19th. Urine much increased in quantity since his admission. Swelling very slight. General health pretty good.

21st. Very little, if any swelling.

22nd. Mouth sore. Feces light-coloured.

To omit the mercurial pills.

To take of the *Pilulæ Aloës cum Myrrhâ* one six times a day.

24th. Is quite well. No swelling. No pain. Bowels open.

Feces healthy.

26th. Discharged quite cured.

CASE LXXXIII.—Hydrops. Ascites atque Anasarca; i. e. Hydrops abdominis et cellularis. Dropsy of the belly and of the limbs. Passive.

15th July, 1833.

Jane Boardman, widow, a domestic servant, aged 60 years, says her legs first began to swell two months ago, and a few days afterwards they ulcerated, and discharged a considerable quantity of limpid fluid. She became much debilitated, and felt occasional pain in her right side.

On her admission she presented the following symptoms. Legs edematous, ulcerated, and inflamed, with considerable pain in them. A fluctuating tumour of the belly. Much pain on pressure over the region of the liver. Pain and sense of weight in the right shoulder and arm; some also in the lumbar region. Bowels costive. Urine scanty. Tongue furred. Bad taste in the mouth. Very little appetite. Much thirst. Nights restless. Pulse small and intermittent. Breathing hurried and difficult. Very little cough. Sweats at night. Feels languid and depressed; and is troubled with wind.

To take every night the following pill.

℞ *Colchici radicis contritæ* gr.ij.

Opii duri contriti gr.ss.

Extracti Gentianæ gr.ij. Miscæ.

Fiat *Pilula*.

To take every morning the following powder.

Pulveris Jalapæ tartarizati ℥j.

To have tepid fomentations to the legs.

To keep in bed, and take rice diet.

16th. Bowels open. Feces light-coloured. Urine scanty.

Dyspnea much increased. Feels considerable faintness. Swelling no better.

17th. Bowels open. Feces very light-coloured. Urine not so scanty. Belly less swelled. Legs improved. Tongue dry and rough. Much thirst. Dyspnea rather less. Less pain in the side. Pulse irregular, very low, and weak.

To have common poultices constantly applied to the ulcers of both legs.

18th. Feces still light. Urine as before. Swelling diminished. No pain. Complains of want of sleep.

To omit the pills and powders already prescribed.

To take a mercurial pill every night.

℞ Potassæ Carbonatis ℥ij.

Tincturæ aromaticæ f℥iv.

Infusi Calumbæ f℥vss. Misce.

Sumatur f℥jss. quater quotidie.

℞ Ammoniaë Subcarbonatis,

Camphoræ, āā gr.v.

Confectionis Rosæ caninaë q. s. ut fiat bolus tertiâ quâque horâ sumendus.

℞ Tincturæ Opii m. xxx.

Misturæ Camphoræ f℥j. Misce.

Fiat haustus horâ somni sumendus.

19th. Slept well. Bowels moved five or six times yesterday. Feces unchanged. Urine somewhat more plentiful. Belly less swelled. Legs considerably less swelled. They feel less painful. Ulcers clean. Pulse still irregular, slow, and feeble. Dyspnea very urgent. Tongue cleaner. Appetite as before. Has still a bad taste in her mouth.

To have four ounces of gin daily.

20th. Passed a bad night through incessant palpitation and dyspnea. Pulse very low. Skin cold and clammy. Other symptoms as before.

21st. Dyspnea and palpitation continue, causing her to start up frequently in the night. Feels easier when in an upright position. Has no pain. Bowels open. Feces light-coloured. Urine more

plentiful. Belly less swelled. Legs better. Pulse continues slow and irregular.

22nd. Passed a good night. Feels comfortable this morning. Dyspnea less urgent. Urine more plentiful. Swelling diminished. Legs much improved. Pulse slow and weak, but more regular.

23rd. Slept badly, owing to dyspnea and palpitation. Had frequent starts from sleep. Bowels open. Feces unchanged. Urine as before. Abdominal tumour less. No pain or tenderness. Tongue rather furred this morning. Bad taste. Appetite not improved. Pulse irregular and excessively weak.

24th. Palpitation and dyspnea continue to be very urgent. Pulse low, and still irregular. Other symptoms as before. Has a pain in the chest on inspiration.

To omit the mixture.

To take an ounce of the *Mistura Aetheris cum Opio* every three hours.

To have a blister to the chest.

26th. Breathing no better. Palpitation still urgent. Other symptoms unabated.

27th. Had much palpitation in the night. Breathing short. Expectoration difficult.

28th. Had much palpitation in the night; but slept better. Breathing laborious. Pulse feeble and irregular. Appetite bad. She always feels worse after taking food.

29th. Stools more bilious. Urine more abundant. Ulcers in the legs better. Dyspnea still troublesome.

30th. Passed a good night. Breathes more freely. Less palpitation. Tongue clean. Pulse weak, but more regular.

31st. Feels better. Voids more urine. Swelling of the abdomen less. Ulcers of the legs are healing fast. Breathing less laborious. Pulse more regular.

To omit the *Mistura Aetheris cum Opio*.

R Potassæ Carbonatis ℥ij.

Tincturæ aromaticæ f℥iv.

Infusi Calumbæ f℥vss. Miscæ.

Sumatur f℥jss. quater quotidie.

1st August. Breathing at times is very difficult. Pulse very low. Stools still clay-coloured. Voids considerably more water. Legs still improving. Bowels costive.

To take two drachms of castor-oil.

2nd. Stools more bilious. Urine plentiful. Breathing free. Swelling nearly gone. Ulcers of the legs still looking well. Appetite improved. No pains. Is considerably better.

4th. Urine plentiful. Swelling much less. Dyspnea less urgent. Pulse still irregular, but stronger.

5th. Urine more plentiful. Swelling decreasing. Ulcers improving. Tongue cleaner.

6th. Had a good night. Feels much better. Breathing less difficult. Pulse low, but more regular. Bowels open. Stools still clay-coloured, but less so than before. Appetite improves. Mouth and gums affected by the mercury.

7th. Feels better. Urine plentiful. Very little swelling of the abdomen. Ulcers nearly healed. Tongue cleaner. Appetite better. No pain. Pulse intermittent.

8th. Swelling nearly gone.

9th. Continues to improve. Feces natural. Urine plentiful. No tumefaction in the abdomen. Ulcers healing very rapidly. Pulse more regular. Tongue clean. Appetite improved. No pain.

To omit the mercurial pills.

10th, 11th, 12th. Is still improving.

13th, 14th. Has occasional dyspnea, but is otherwise improving. Bowels costive.

To have half an ounce of castor-oil.

15th. Bowels open. Feces natural. Urine plentiful. Legs nearly well.

16th. Bowels regular. Feces healthy. Urine in proper quantity. No swelling or pain. Ulcers nearly healed.

17th. Much the same. Has no unhealthy symptom, except that the ulcer in one leg is not quite healed.

18th, 19th, 20th. No complaints.

To omit the boluses, and to have common diet.

23rd. Had considerable dyspnea in the night, for which she had one ounce of the *Mistura Aetheris cum Opio* every third hour. Feels pretty well this morning. No swelling or pain. Bowels and urine healthy. One leg perfectly healed, the other nearly well.

24th. Dyspnea has been very urgent in the night, and is undiminished this morning. Pulse irregular and extremely feeble. Dropsical symptoms are quite relieved.

To have four ounces of French brandy in the day, instead of the gin.

Vesperè. Dyspnea unabated.

To have a blister applied to the thorax.

To have the brandy increased to eight ounces daily.

25th. Passed a better night. Breathing still difficult. Pulse very feeble.

℞ Spiritûs Ammoniaë aromatici,
 Spiritûs Lavandulæ compositi, āā f̄iv.
 Infusi Serpentariaë f̄v. Misce.
 Sumatur f̄jss. quater quotidie.

26th. Had a bad night. Dyspnea still very considerable, with much debility. Pulse 110, very feeble, more regular. Bowels costive. No Swelling. Cannot sleep.

Add half a drachm of laudanum to the *Serpentaria* mixture.

27th. Had a very bad night. Dyspnea was very urgent. Is rather better this morning. Pulse was fluttering and irregular. Has a short, dry cough, very little expectoration. Bowels rather costive. Tongue furred. Very little appetite.

28th. Passed a better night. Pulse more distinct, but still very feeble. Felt very sick after taking the mixture.

To omit the *Serpentaria* mixture.

To take one *Pilula Quininaë Sulphatis* with half an ounce of the *Mistura Quininaë Sulphatis* four times a day.

29th. Feels low and faint. Slept rather better. Pulse still indistinct. Cough dry and urgent. Difficulty of breathing occasionally great.

30th. Dyspnea much the same. Still feels very feeble.

Tongue furred. Very little appetite. Bowels open. Dropsical symptoms have not returned.

1st and 2nd September. Continues much the same, with very little ailment except dyspnea and debility.

Let the remaining ulcer be dressed with calamine-cerate.

4th, 5th. Is still annoyed by asthma.

6th. Discharged quite cured of dropsy.

OBSERVATION.

This was a case of passive dropsy cured on the usual principle; but I candidly confess that I believe the woman, when she got home, would by neglecting her bowels, completely relapse.

CASE LXXXIV.—Hydrops abdominis; i. e. Ascites: Dropsy of the belly. Active.

29th July, 1833.

George Worsley, unmarried, aged 41 years, a glazier, says that about fifteen months ago, he received a strain by lifting a heavy weight of lead. His urine was bloody and scanty for some days afterwards; and it then became milky. His appetite and general health were good. From this time he did not make the natural quantity of urine, and perceived his abdomen gradually swelling. He did not apply for medical aid.

At the time of his admission the skin presented rather a yellow cast. Pulse quick and full. Tongue clean and moist. Appetite good. No cough or difficulty of breathing. No pain or tenderness on pressure. Says the bowels are regular. Urine is scanty. There is a large, tense, fluctuating tumour occupying the whole of the abdomen, which is of an immense size, so that he can by no contrivance see his own knees.

To have one grain of calomel in the form of pill night and morning.

℞ Tincturæ Digitalis f̄ʒj.
 Misturæ Camphoræ f̄ʒvi. Miscæ.
 Sumatur f̄ʒjss. quater quotidie.
 To lie in bed, and take rice diet.

30th. Stools clay-coloured.

1st August. Swelling of the abdomen softer, and somewhat less. Pulse slower. Stools more bilious. Urine more abundant.

2nd. Swelling considerably softer and much less. Pulse regular, and not quick. Stools bilious. Urine healthy, and in natural quantity. Says he feels much better.

4th. Is much better. Swelling much diminished and softer. Urine continues plentiful. Bowels open. Pulse 68, full.

6th. Pulse 64. Feces bilious. Urine plentiful, but high-coloured. Skin clearer. Swelling decreases.

8th. Felt sick from the mixture. Mouth affected by the calomel. Pulse 72, small. Urine high-coloured, but not scanty. Feces bilious. Swelling much diminished.

Omit the mixture and the calomel.

℞ Potassæ Carbonatis ʒij.
 Tincturæ aromaticæ f̄ʒiv.
 Infusi Calumbæ f̄ʒvss. Miscæ.
 Sumatur f̄ʒjss. quater quotidie.
 To take a mercurial pill night and morning.

10th. Bowels costive.

To take half an ounce of castor-oil.

11th. *Manè*. Bowels still costive.

To repeat the castor-oil.

11th. *Meridiè*. Bowels freely moved. Urine very scanty. Feels sick. Tongue furred. Appetite bad. Pulse 72. Swelling much the same.

12th. Has been very ill in the night. Could not pass any urine, and had considerable pain in the hypogastrium. He drank copiously of warm barley-water, and felt relieved. Tongue furred. No appetite. Urine scanty. Pulse 78, feeble and thready. Bowels purged. Feces loose and light-coloured. Skin still very

yellow. Has some pain on pressure over the hepatic region. Swelling is rather less.

13th. Feels much better. Has no pain. Voids his urine more freely, but it is still scanty, and particularly dark-coloured, *depositing a copious pink sediment*. Feces more natural. Tongue cleaner. Pulse 76, feeble.

14th. Pulse 80, weak. Skin still yellow. Tongue rough and furred. Urine still scanty, and of the same character as at the last report. Some pain in the loins. Swelling rather greater.

To omit the mixture and the mercurial pills.

To take two of the *Pilulæ Scillæ cum Hydrargyro* three times a day.

R *Tincturæ Digitalis* fʒss.

Misturæ Camphoræ fʒvi. *Misce.*

Sumatur fʒjss. *quater quotidie.*

15th. Feels much better. Pulse 68, feeble. Tongue clean. Bowels open. Feces bilious. Urine is more abundant and deposits less sediment. Has no pain. Skin less yellow. Swelling is much the same.

16th. Urine still scanty, but not so dark-coloured, gives a copious deposite of a brown colour.

To have flesh-meat and potatoes agreeably to his own request.

Vesperè. Pulse much reduced.

To omit the mixture of digitalis.

17th. Pulse 68, feeble. Urine scanty, and less turbid. Tongue cleaner. Appetite improved. Stools bilious. No pain. Abdomen less.

To recommence his digitalis mixture.

19th. Pulse 64, very small. Urine scanty, but less so than before.

To omit the digitalis mixture.

20th. Pulse 72. Urine still scanty, but less turbid.

To recommence the digitalis mixture.

Vesperè. Pulse 68.

To omit the digitalis mixture.

21st. Pulse 70, feeble. Urine more plentiful, and more natural. Skin less tinged than before.

22nd. Pulse 64, feeble. Bowels regular; feces natural. Urine increased in quantity, not turbid, but high-coloured. No pain. Swelling diminished.

To omit the pills as well as the mixture.

℞ Potassæ Supertartratis ʒiv.

Confectionis Opii ʒj.

Theriaca q. s. fiat confectio.

Sumatur quarta pars quater quotidie.

23rd. Pulse 72. Bowels rather costive. Urine scanty and high-coloured.

To take half an ounce of castor-oil.

24th. Pulse 80, feeble. Bowels freely moved. Urine plentiful. Swelling decreasing.

25th. Pulse 68, very feeble. Urine still scanty and turbid.

To have four ounces of gin daily.

26th. Pulse 80. Urine more plentiful, but still deposits a copious pink sediment. Abdominal tumour tense, but smaller.

To increase the gin to six ounces daily.

27th. Pulse 70, feeble. Tongue clean. Appetite good. Bowels regular. Sleeps well. Urine increases. Tumour diminishes.

To omit the Confection.

℞ Spiritûs Ammoniaë aromatici,

Spiritûs Lavandulaë compositi, āā fʒiv.

Infusi Serpentariaë compositi fʒvii. Miscæ.

Sumantur fʒij. quater quotidie.

29th. Pulse still very feeble. Abdomen rather more tumefied. Urine still very scanty.

To omit the mixture.

To take an eighth of a grain of corrosive sublimate in a pill four times a day.

To take an ounce and a half of the Mistura Cinchonæ four times a day.

30th. Pulse 70, stronger. Urine still scanty, and tumour much the same as at the last report.

To have six leeches to the abdomen.

31st. Much the same.

To have the hot bath every night.

1st September. Pulse 80, still feeble. Urine some little increased. Swelling less.

2nd. Pulse 80, much stronger. Swelling much the same. Voids his urine frequently and in small quantities. It continues to deposite a pink sediment. It does not coagulate when heated to the boiling point.

To have ten leeches to the abdomen.

To return to rice diet.

3rd. No material alteration.

To have ten leeches more to the abdomen.

To omit the gin.

4th. Urine more plentiful. Belly not diminished in size lately.

To omit the cinchona mixture.

To take the corrosive sublimate six times a day.

To have ten leeches more to the abdomen.

5th. Urine more plentiful. Abdominal tumour somewhat diminished.

℞ Potassæ Nitratis ℥ij.

Potassæ Acetatis ℥vi.

Tincturæ Digitalis f℥ss.

Aquæ puræ f℥xij. Misce.

Sumantur f℥ij. quater quotidie.

6th. Pulse 90. Tongue furred. Appetite bad. Bowels purged. Feels sick. Abdomen less swelled. Urine more plentiful, and not turbid. He says he voids it with much more facility than he did before.

To add half a drachm of Tinctura Opii to the mixture.

8th. Has been very ill in the night. Felt cold and feeble. Fell down on attempting to rise. Was very sick and vomited all his medicine. This morning his pulse is 112, and very feeble. Tongue furred. Mouth clammy. Much thirst.

8th. 7 P. M. Is very sick. Pulse indistinct. Belly rather painful and feels hot.

To omit the mixture.

To have six ounces of gin daily.

9th. Has had a very bad night. Continues to feel sick, and has vomited several times. Pulse 112, less feeble than last night. Tongue dry and furred. No appetite. Bad taste and extreme thirst. Belly extremely painful, and externally inflamed. The redness is of an erythematic character, principally in the lower part of the abdomen, and many red lines, probably inflamed lymphatics, run up towards the chest. On the left side there is an appearance of ecchymosis. He cannot bear pressure. Urine is more limpid and somewhat more abundant, but of a very high colour, and deposits a high-coloured sediment. Feces darker.

To omit the pills and the gin.

To have four ounces of brandy daily.

To have the belly fomented.

To have an effervescing draught, the *Haustus Potassæ Citratis cum Tincturæ Calumbæ f3ss.*, every third hour.

To have every three hours two ounces of the *Mistura Acidi sulphurici*.

10th. The external inflammation of the abdomen much extended and very painful; somewhat relieved by the fomentations. Pulse very feeble, less quick. Tongue more moist. Less thirst. Slept very ill. Urine scanty.

11th. Inflammation of the abdominal integuments much abated, but the lymphatics are red to a greater extent. Much less pain. Passed a better night. Tongue white and much coated. No appetite. Less thirst. Skin moist. Sweat much in the night. Bowels not moved to-day. No sickness. Urine less in quantity, but still high-coloured. Pulse 80, small and wiry.

℞ *Ferri Sulphatis gr.j.*

Tincturæ Iodinæ,

Liquoris Morphinæ Acetatis, āā m.x.

Magnesiæ Sulphatis,

Sodæ Sulphatis, āā ʒij.

Misturæ Acidi sulphurici q. s. ut fiat O.j.

Sumantur f̄ij. tertiâ quâque horâ.

To omit the Acid mixture.

12th. Inflammation less general ; confined chiefly to the lower part of the abdomen. Has considerably less tenderness. Urine still scanty, but more natural in colour. Swelling does not abate. Sweats much. Has a troublesome cough. Pulse 84, small and feeble. Tongue cleaner. Bowels open, motions healthy. Rests much better.

13th. Pulse 84, stronger. Perspires much. Urine still very scanty. Abdomen much diminished in size.

14th. Urine more plentiful.

15th. Since the abdominal tumour has subsided so much, a distinct enlargement of the spleen may be perceived. Says he first observed it soon after he received the strain from which he dates the complaint.

To have six l eches to the region of the spleen.

To add to the mixture ten minims of the Tincture of Iodine.

16th. Pulse 80, weak and thready. General swelling diminished. Urine greater in quantity, clear and natural. Tongue cleaner. Bowels open ; feces healthy. Sleeps comfortably.

19th. Feels considerably better. Urine increased materially. Abdomen less swelled. Pulse 68. Tongue nearly clean. Appetite good.

21st. Urine rather more plentiful.

To omit the mixture.

℞ Ferri Sulphatis gr.ij.

Tincturæ Iodinæ m.xxx.

Liquoris Morphinæ Acetatis m.x.

Magnesiæ Sulphatis.

Soda Sulphatis, āā ̄iv.

Misturæ Acidi sulphurici q. s. fiat Mistura O.j.

Sumantur f̄ij. tertiâ quâque horâ.

24th. Is improving. Tongue clean. Appetite good. Pulse feeble. Urine more plentiful. Swelling less.

25th. Urine increased.

To have ten leeches to the region of the spleen.

27th. Feels better. Urine rather increased. He says his belly is not larger than it has been for several years.

Ordered to sit up, and to walk about the gardens.

28th. Bowels very much purged. Swelling of the abdomen much less. Pulse regular.

1st October. Feels well. Urine much increased. Tongue clean. Appetite good. Bowels more quiet.

2nd. Urine plentiful and healthy. Skin much more clear. Feels stronger. Swelling of the abdomen not wholly subsided; but he says his belly is not larger than it has been for some three or four years past.

3rd. Walks about, and feels well.

4th. Bowels regular; feces natural. Urine healthy. Swelling of the abdomen diminished. Tumour of the spleen decreasing.

7th. Feels well. Abdomen not quite its natural size. Urine plentiful and healthy.

9th. Says he improves daily.

11th. There is still some fluid in the abdomen; but he makes no complaint. Tumour of the spleen decreasing.

14th. Urine exceedingly plentiful. Bowels regular. Tumour of the spleen considerably diminished.

15th. Found by measurement that his abdomen is considerably less than it was some days ago.

16th. Feels perfectly well. Tumour of the spleen nearly subsided.

21st. Discharged cured.

OBSERVATIONS.

Gentlemen, I believe this to have been a case of *active* dropsy, and that it originated with the strain of which the man complained. When he came in his belly was the largest I have ever witnessed. He could by no means see his own knees. What did

him the most good, decidedly, was the imitation of Cheltenham water which we gave him. But even that did not operate well until he was sent to walk about in the garden. I met him in the streets about two months after he had been discharged. He seemed very well and exceedingly grateful.

CASE LXXXV.—Erythema œdematosum. Hydrops cellularis. Anasarca. Active.

23rd September, 1833.

Mary Mason, married, aged 35, takes care of her family, has been afflicted nine months. Her complaint commenced with swelling in the belly, which subsided upon the legs becoming affected. The legs are now very red, and here and there ulcerated. Feel very painful and are burning hot. Pulse 120. Tongue dry and red. Much thirst. Skin hot. Appetite bad. Bowels regular.

To have common poultices put upon each leg, where ulcerated.

To have one fluid ounce of the *Mistura antimonalis* every three hours.

To have one mercurial pill night and morning.

To have rice diet, and to lie in bed.

24th. Complains of considerable pain in the left side, increased on taking a deep inspiration. Has also a cough, which is very urgent, and occasional dyspnea.

To take away six ounces of blood by cupping-glasses to the left side.

25th. Has no pain in the left side. Respiration is rattling, but less difficult. Cough much the same. Legs less painful, and also much less swelled. Very little thirst.

26th. Has much pain in the legs, but feels less burning heat. No pain in the side. Cough troublesome. Breathing more free,

but always worse when in the recumbent position. Tongue furred. Appetite good. Pulse feeble.

27th. Legs improved; less painful. Pulse 100, wiry. Breathing still difficult. Cough urgent.

To add to six fluid ounces of the mixture, ten minims of the *Liquor Morphinæ Acetatis*.

30th. Legs more swelled, but less painful. Cough not so urgent. General health improved.

1st October. Legs less swelled, and less painful.

2nd. Pulse 90, soft. Feels rather sick. Bowels regular. Tongue furred. Cough and breathing much better. Legs less swelled, but still considerably inflamed.

4th. Urine increased in quantity. Legs continue to be painful and inflamed. General health improved. Bowels regular.

6th. Legs improved; they have very little swelling, but are still painful. Pulse quick, strong.

7th. Much better. Legs considerably improved. Very little pain, no swelling in them. General health better.

9th. Ulcers on the legs are nearly well. No redness or swelling.

12th. Feels much better. Tongue nearly clean. Pain in the legs nearly gone.

14th. Says she feels nearly well.

18th. Ulcers nearly healed. General health good.

23rd. Legs improving.

To omit the mixture.

24th. Improved.

To omit all the remedies.

28th. Discharged quite cured.

OBSERVATIONS.

I hardly know, gentlemen, whether to place this case under the head of John Hunter's erythema oedematosum, or under the head of active anasarca. Suppose we say that there is no difference between

the affections. Shall we be far wrong? I think not. Then, for the treatment, you saw that complete rest in bed, poultices to the limbs, mild diet, the blue pill to put the stomach and bowels into natural order, and the *mistura antimonialis* to bring down the action of the heart, effected a cure in a remarkably short space of time.

CASE LXXXVI.—Hydrops pericardii, hydrops thoracis, atque hydrops abdominis : hydrops pericardii, hydrothorax, and ascites. Passive.

23rd September, 1833.

Sarah Holland, weaver, married, aged 37, says she has been ill six months. When her complaint began, she perceived an enlargement of the abdomen, scanty urine, inordinate beating about the heart, difficulty of breathing, occasional pain in the right side and shoulder, impaired appetite. She had enjoyed good health for some time previously; but three years ago she had a similar attack, less severe, after confinement in child-birth. Catamenia have not recurred since.

On admission she presented the following symptoms; a decided yellowness of the skin and conjunctiva; abdomen enlarged and fluctuating; pain on pressure over the right hypochondrium, and occasionally in the shoulder of the same side; inability to lie on the left side; inordinate palpitation of the heart; great difficulty of breathing, increased when in the recumbent position; occasional cough; pain in the head; pulse indistinct; tongue furred; very bad taste in the mouth; bad appetite; bowels regular; much flatus; spirits depressed; countenance anxious; urine very scanty, and deposits a copious yellow sediment; feces very dark-coloured; the stethoscope indicates the presence of water both in the thorax and pericardium.

To have immediately twenty grains of the *Pulvis Hydrargyri Submuriatis cum Jalapâ*.

24th. Bowels have been freely moved by the powder. Motions dark. Legs edematous. Urine very scanty and turbid.

To take a mercurial pill four times a day.

R Spiritûs Aetheris nitrici f̄iv.

Misturæ Ammoniaë Acetatis f̄vss. Misce.

Sumatur f̄jss. quater quotidie.

To lie in bed, and take rice diet.

25th. Feels no pain. Slept very well. Breathing more free. Urine still exceedingly scanty and turbid. Abdomen undiminished in size. Feces more natural.

To have four ounces of gin daily.

26th. Countenance very anxious. Lips and cheeks are blue. Much pain in the right side. Breathing much impeded. Belly more swelled and tense. Pulse indistinct and irregular. Bowels open. Feces bilious. Urine scanty and turbid. The stethoscope was employed. When applied to the chest, and between the scapulæ, no sound of respiration could be heard. When placed close upon the inferior angle of one scapula, ægophony was perceived. When placed over the heart a dull murmur was heard, as if the pulsations of the heart deadened by their transmission through fluid.

To omit the mixture.

R Tincturæ Digitalis f̄j.

Misturæ Ammoniaë Acetatis f̄vi. Misce.

Sumatur f̄jss. quater quotidie.

28th. Says she feels much better. Colour more natural. Urine much more plentiful, the pot being three quarters full. Feces healthy and bilious. Pulse quite distinct, though irregular. Swelling the same.

29th. Feels easier. Breathing better. Colour natural. Pulse as before. Can lie on either side. Some little cough this morning.

To omit the mixture and the gin.

R Tincturæ Digitalis f̄j.

Tincturæ Scillæ f̄ij.

Tincturæ Camphoræ compositæ f̄j.

Theriacaē f̄3iv.

Mucilaginis Acaciaē f̄3j.

Misturæ Camphoræ, q. s. ut fiant f̄3vi.

Sumatur f̄3j. sexies in die.

To take one of the Pilulæ Aloës cum Myrrhâ, every hour whilst she is awake.

30th. Urine increased in quantity, and clear. Bowels have not been moved. Has vomited some green matter this morning. Pulse distinct, but irregular.

To take three grains of the Pilulæ Aloës cum Myrrhâ every hour whilst she is awake.

℞ Potassæ Carbonatis ʒij.

Tincturæ aromaticæ f̄3iv.

Infusi Calumbæ f̄3vss. Misce.

Sumatur f̄3jss. quater in die.

To omit what was before prescribed.

1st October. Bowels have been open. Feces healthy. Urine not scanty, but turbid and dark-coloured.

2nd. No palpitation at present. Swelling has subsided. Bowels open, feces dark. Urine clear and plentiful. Breathes more freely.

3rd. Tongue clean. Appetite much improved. Bowels open, feces healthy. Urine clear, not scanty. Skin more natural. Swelling much diminished.

4th. Pulse fuller. No cough. No palpitation. Urine plentiful, and nearly limpid. Sleeps well. Can lie on either side. Bowels open, feces natural. Countenance more healthy.

8th. Is still improving. Skin clearer. Urine plentiful. Very little swelling. Pulse more regular and distinct. *Feels well.*

9th. Is sitting up, and feels quite well. Swelling rapidly subsiding. Skin nearly clear.

10th. Pulse still irregular, and heart occasionally very rapid in its action.

12th. Feels much better. Swelling decreasing. Appetite very good.

To add to the mixture, Tincturæ Digitalis f̄3j.

15th. Urine plentiful. Feces healthy. Lies in the horizontal posture, and breathes freely.

16th. Much as before.

To omit the Tincture of Digitalis.

18th. Continues to improve.

21st. Discharged cured.

OBSERVATIONS.

This woman's complaints appear to have originated in torpor of the liver, caused most probably by the sedentary life which she led, as a weaver. How torpor of the liver produces dropsy of the belly I have already explained in my lecture on dropsy. It remains for me to explain how dropsy of the belly may produce hydropericardii and hydrothorax.

The belly being full of fluid, the diaphragm is pushed up, or not allowed to descend to its natural point; the heart, therefore, has not room to expand and contract to its proper degree. The coronary vein cannot return the blood into the heart, with the usual freedom, and cannot, therefore, keep the pericardium empty. This forms, then, another and a greater obstacle to the return of blood to the heart; and the consequence is that the cavity of the pleura cannot be kept empty, and so we have hydrothorax. This woman had all the signs of the three complaints.

She was cured in the same manner as Margaret Kearney was, which manner I have sufficiently explained in my lecture on dropsy.

DIABETES INSIPIDUS.

CASE LXXXVII.—Diabetes insipidus. Paruria incontinen-
s aquosa. Hyperuresis aquosa.

19th June, 1833.

John Wright, aged 64 years, labourer, a widower, says it is seven months since he first perceived extreme thirst, frequent desire to void his urine, and an increase in the quantity evacuated. His health, previously to this, had been good; but since the period of the first attack, the symptoms have been increasing in violence, and he has latterly become so much debilitated as to be totally unable to follow his usual employment. Before his attack he had been much exposed to damp, having worked in a garden during wet weather, at all hours in the day. His nights have been passed without rest on account of his insatiable thirst, and almost constant desire to void his urine. He says that the quantity of water, milk and water, and other fluids, with which he has sought to quench this intolerable thirst, has frequently amounted to twenty-eight or thirty pints in twenty-four hours, and, as nearly as he could calculate, the amount of urine has not been less. His bowels during this time have been for the most part irregular, and, latterly, very much relaxed. His appetite has been impaired. At one time he used frequently to vomit. Felt erratic pains in the limbs, which he attributed to rheumatism. Has had an itching about the skin. Passes a considerable quantity of wind *per anum*.

The first day of his admission his drink consisted of five pints of water; his urine amounted to nine pints, perfectly insipid, its specific gravity, 1006, to water at 1000. Bowels very loose.

Ten leeches to the abdomen. Poultices afterwards.

℞ Plumbi Acetatis gr.ij.

Opii duri contriti gr.ss.

Fiat pilula quartâ quâque horâ sumenda.

To lie in bed, and take rice diet, biscuits, and barley-water.

20th. Tongue very red; papillæ much raised, particularly at the tip and edges; mouth dry and clammy. Has drunk only four pints to-day. Very little appetite. No vomiting. No pain in the stomach or tenderness on pressure. No pain in the back or limbs. Skin rough and dry, but not hot. Pulse 100, very feeble. Bowels loose; stools light-coloured. He is much emaciated and feels great languor and debility. A very trifling cough. Much wind. Urine, nine pints, specific gravity, 1004.

21st. Seems better. Two stools. Tongue the same. Feels more cheerful. Other symptoms as before. Drink, eight pints. Urine, eleven pints, sp. gr. 1003.

22nd. Bowels much relaxed. No pain. Tenesmus at each evacuation from the bowels. Much wind. Drink, five pints; urine, eight pints, sp. gr. 1003.

23rd. Tongue has the same character of mucous inflammation. Pulse as before. Bowels quieter; only one motion; very little tenesmus. Very drowsy; slept well. Very little appetite. Has vomited some bitter yellow matter. Wind troublesome. Drink, five pints; urine, eight pints, sp. gr. 1003.

24th. Almost constant desire to vomit, and frequently throws a yellow viscid bitter matter from his stomach. Bowels relaxed. Pulse very slow and feeble. Skin cold, rough, and dry. Feet occasionally cold. Thoughts seem to ramble very much. Drink, four pints; urine, eight pints; the specific gravity could not be ascertained, as he persisted in vomiting into his urine, although another vessel was provided for him.

25th. Vomiting continues. Very sick and faint. Pulse small and feeble. Tongue still red. Bowels very loose. Feels a desire to drink cold water, in preference to his barley-water. Less frequent inclination to void his urine. No appetite. Drink, two pints; urine, three pints, sp. gr. 1005.

To have in addition to every thing already prescribed, four ounces of French brandy daily.

26th. Still much purged. Vomiting unabated. Pulse very low. Thirst less. Tongue unchanged. Eats nothing but a little arrow-root. Drink, two pints; urine, two pints, sp. gr. 1005.

In the night the quantity of brandy was increased ; he is now taking eight ounces daily.

To have beef-tea *ad libitum*.

Angeatur Plumbi Acetas ad. gr.v.

Opium ad gr. j. in singulis pilulis.

Misturæ Aetheris cum Opio f̄j. quartâ quâque horâ sumenda.

27th. Pulse small and very feeble. Tongue foul and still red. Purging continues. Vomiting somewhat abated. Eats nothing but arrow-root, and of that very little. He is delirious ; very restless ; and throws himself about in the bed, hanging his head over the side. Drink, a pint and a half ; urine, two pints.

28th. Vomiting and purging incessant. Delirium increased.

29th. Vomiting and purging continue.

30th. Vomiting and purging not diminished. Pulse hardly perceptible. Eats nothing.

Mistura ut antea secundâ quâque horâ.

1st July. Is rapidly sinking. No pulse. Skin quite cold. Vomiting and purging unabated.

2nd. Appeared to rally for a short time, but sank again, and died this morning, at 9 A. M.

Autopsy, twenty-four hours after death.

3rd. Upon opening the abdomen, the stomach externally presented, near the cardiac orifice, the appearance of perforation of its coats. Internally, the mucous membrane seemed much inflamed, and there was a large ulcer which penetrated through all the coats. The inner coat also presented several small ulcers. The parieties of the stomach were much thinner than natural. The pylorus was very thick and inflamed.

In the duodenum was a large ulcer, with several smaller ones.

There were numerous ulcers throughout the small intestines, but they were particularly obvious and large in the latter portion of the ileum, where it terminates in the caput cœcum coli ; in this spot they were very numerous. The large intestines were also much inflamed and ulcerated. In the lower part of the rectum the mucous membrane was much thickened, and had

the appearance of dark inflammation. Ulcers were also observed in this portion.

The kidneys seemed diseased, particularly the left one, which was larger than natural, much congested, and had a mottled, granulated appearance internally, with something like cysts, which might be enlarged infundibula.

There was a scrofulous looking abscess under the left pectoralis muscle, not communicating with the interior of the thorax. The second rib, upon which this abscess was situated, was carious.

There were numerous and strong adhesions of the pleuræ on both sides. The lungs, when cut into, appeared healthy.

The liver appeared healthy.

OBSERVATIONS.

You know, gentlemen, that this man was admitted for Diabetes insipidus. On the third day of his being in the house he was put under my care, and I immediately declared, that, whatever became of his diabetes insipidus, he was certainly labouring under *gastro-enteritis*, or *gastro-entero-colitis*. When we came to inspect him after death, I trust there is no harm in saying, that, as the man was dead, I was pleased to find my diagnosis completely confirmed to the fullest extent.

Now, a question evidently arises, Was his gastro-enteritis or his diabetes the primary disease? In the first place there is great doubt as to the existence of diabetes insipidus as an idiopathic disease. Cullen does not mention it, except very cursorily, in his "First Lines," and in his Nosology expresses himself very doubtfully. Speaking of the diabetes insipidus, he says, "An hujusmodi diabetis species

sit frequens, incertum est. In omnibus exemplis, iisque non paucis, quæ viderat Willisius, urinam mellitam semper invenit; et observationes nuperæ frequentes ferè omnes ejusmodi urinam exhibuerunt; ita ut dubium sit, an alia diabetes idiopathicæ et permanentis species revera detur. Affirmat autem Listerus; et ego ipse inter plures mellitas unicam insipidam observavi. Ejusmodi itaque speciem dari concedo, ideoque recensui; sed, an rectè legitima dici queat, vel an diabetes Aretæi et plurium auctorum ejusmodi fuissent, multum dubito.”*

I will just candidly tell you, gentlemen, my idea of the progress of this case. I think it probable that the man took cold from working in a garden in wet weather, as he said; that this cold was the cause of his gastro-enteritis; and that the great thirst produced by this complaint caused him to drink much both of water, and of stimulating liquors. The appearance of his face indicated that he was addicted to the taking of the latter kind of drink. Well, I suppose his gastro-enteritis was aggravated by the use of such liquor, and, at the same time his kidneys were stimulated beyond their natural action. Such, I judge the most natural way of accounting for his extreme thirst, his extreme uresis, the appearance of his kidneys after death, and for the existence of the *gastro-entero-colitis*.

I have little more to add. The treatment you

* Cullen. Synopsis Nosologiæ. Genus 61.

witnessed. It was, as might have been expected, unsuccessful; but it was rational, and that is sufficient. With regard to the brandy and beef-tea, we may say that they were not likely to cure him. Neither was any thing likely to cure him; but it was nevertheless proper to give him both brandy and beef-tea; for a reason I mentioned before. In short, if this had been a patient of any of yours in private practice, and you had withheld the brandy and beef-tea, his death would most assuredly, right or wrong, have been, by his relations, laid at your door.

DIABETES.

On Diabetes mellitus, and Diabetes insipidus.

The word *diabetes* is derived from $\delta\iota\alpha\beta\alpha\iota\nu\omega$, “I pass through.”

Diabetes is a disease of which the most obvious symptom is a super-abundant secretion and very frequent evacuation of urine. The affection is commonly accompanied by a voracious appetite, a dry skin, an inextinguishable thirst, a progressive emaciation, and other symptoms, more or less troublesome, which render the disease always very serious and, in point of fact, most frequently fatal.

The disease has received various names. The Greeks styled those who were attacked by it *δυσρητικοί*. Galen gives it sometimes the name of *diarrhœa urinosa*, sometimes that of *hydrops ad matulam*, sometimes that of *dipsacus*, from *δίψα*, 'sitis,' or thirst, from the great thirst which accompanies it. It has also been called profluvium,—nimia profusio urinæ,—cita emissio rerum quæ bibuntur,—polyuria,—diabetes anglicus,—diabetes mellitus,—hyperuresis aquosa,—paruria mellita,—paruria incontinens aquosa.

The disease called diabetes appears to have been utterly unknown to Hippocrates; as he makes no mention of it. Celsus was acquainted with it, and mentions it in his writings, with what he considered the proper method of cure. Aretæus has described the disease in a very striking manner. Galen also was acquainted with it. All the authors, however, just mentioned, were ignorant of the presence of a matter, with the sweetness of honey, in the urine of one species of diabetes; the diabetes mellitus, the paruria mellita.

It was Dr. Willis, who, at the commencement of the seventeenth century, first pointed out the fact that the urine of diabetes mellitus appears to contain a sweet, honeyed, or saccharine matter. This fact was confirmed by various chemists, and the progress of animal chemistry has finally placed it beyond all doubt.

The question now presents itself, Are there two

species of diabetes, the *mellitus* and the *insipidus*, or is there only one, the *mellitus*? Dr. Young and Dr. Mason Good consider the *diabetes insipidus* as altogether a different disease; and so it is in one of its symptoms, the absence of honey or sugar from the urine, but in every other symptom the two diseases so nearly resemble each other that they may perhaps not improperly, be considered as two species of one genus, or two varieties of one species. In speaking of John Wright's case, I mentioned that Cullen had expressed great doubts as to the existence of *diabetes insipidus* as an idiopathic disease, but that he says, "among many cases of *diabetes mellitus*, he had observed one of *diabetes insipidus*." Now, as for the existence of *diabetes insipidus*, as, properly speaking, an idiopathic disease, it is what I cannot take upon me to pronounce. I believe it is always symptomatic of *gastro-enteritis*, or of *gastro-entero-colitis*. Whether *diabetes mellitus* be not equally the result of *gastro-enteritis*, I cannot positively undertake to declare. I have not yet made a sufficient number of observations; but my belief certainly leans that way.

There will not be any particular advantage in attempting to depict the progress of the symptoms of this disease. That progress varies in different individuals; but, when established, the disease exhibits a red and white tongue; insatiable thirst; usually a voracious appetite, but, sometimes, in the insipid diabetes, the appetite is remarkably deficient;

some pain and heat upon swallowing; pain, uneasiness, weight, and heat in the epigastrium and belly; pain in the back; langour and lassitude in the limbs; great coldness in the extremities, particularly in the lower extremities; sometimes vomiting; in the diabetes mellitus there is a sweet taste constantly in the mouth; sometimes there is costiveness, but generally a constant and most troublesome diarrhea; an incessant desire to make water, with the discharge of any number of pints from six to two hundred in the twenty-four hours; in the diabetes mellitus the urine has the colour, smell, and taste of honey; the pulse is quick and weak; the skin is dry and harsh; the whole body is emaciated. The patient becomes weak, and cast down, sad and silent; he complains of head-ache, and passes sleepless nights. He experiences heat at the throat, esophagus, and stomach, which he is continually endeavouring to remove by the immense quantity of fluid which he is constantly swallowing. The disease may continue for years, and may at last terminate either in death or a cure; although I believe the former is by far the most frequent termination.

The urine, although always excessive in quantity, yet differs in most important particulars, according to the species of diabetes under which the patient is labouring. In *diabetes insipidus*, the urine is of a very low specific gravity, in fact hardly heavier than spring-water. It contains scarcely any other matters than water and a small quantity of animal

matter. In *diabetes mellitus*, the urine is of a very high specific gravity, and it contains a very considerable quantity of genuine honey or sugar, from which a true spirit has been distilled.

Distilled water being taken at a specific gravity of 1000; the urine of *diabetes insipidus* is from 1001 to 1006: natural healthy urine is, according to circumstances, from 1005 to 1020: the urine of eleven male patients not affected with either dropsy or diabetes was taken at five o'clock in the morning, and mixed in equal quantities; the specific gravity was found to be 1017: the urine of seven female patients not affected with either dropsy or diabetes was taken at the same hour and mixed in the same manner; the specific gravity was found to be 1015. The specific gravity of the urine of the gentleman who took the above, and who laboured under no disease, was found to be at the same hour in the morning, 1013: the urine of *diabetes mellitus* is from 1025 to 1050. The sugar which the last kind of urine contains is from a tenth to a seventh part in weight.

A very important question arises, What is the origin of this sugar? In order to approach, in any way, the solution of this question, we must consider that there are five substances, sugar, honey, manna, starch, and gum, which are identical not only in the nature of their component parts, but also in the proportions of their component parts; that is to say, not only the *qualitative*, but also the *quantitative*

analysis of these five substances is exactly identical. This might have been conjectured from the facility with which one of them, starch, passes into two of the others, gum and sugar; but it has been made *certain* by analysis. Mr. Donovan, Professor of Chemistry to the Company of Apothecaries in Ireland, has put this similarity of composition in a striking point of view with regard to starch and sugar. "Starch," he says, "is also a nutritive principle of all grains: it has been analysed by several chemists. The two analyses which most nearly approach, and, therefore, support each other best, are those of Berzelius, who experimented on potato-starch, and Gay-Lussac and Thenard, who used wheaten-starch. These analyses having been executed by eminent chemists, it will be but reasonable to adopt the mean of both, as nearer the truth. The two analyses and the mean will then stand thus:

	Berzelius.	Gay-Lussac & Thenard.		Mean.
Carbon	43.481	43.55	qu. pr.	43.51
Oxygen	49.455	49.68	„ „	49.57
Hydrogen . .	7.064	6.77	„ „	6.92
	100.	100.		100.

“Reflecting on these analyses, we cannot fail to be struck with the similarity of the analysis of sugar, in point of ingredients as well as of proportions. And it will be of importance if we refer to the analyses which have been made by the same

chemists of sugar, taking the mean of both as before.

	Berzelius.	Gay-Lussac & Thenard.	Mean.
Carbon	44.200	42.47	qu. pr. 43.34
Oxygen	49.015	50.63	„ „ 49.82
Hydrogen ..	6.785	6.90	„ „ 6.84
	<hr/>	<hr/>	<hr/>
	100.	100.	100.
	<hr/>	<hr/>	<hr/>

“ The result of these statements is, that starch and sugar are composed of precisely the same ingredients ; that the only discoverable difference is a slight disagreement in the relative quantities, and that this is exceedingly trivial. By comparison of the two means, the following are the differences : one hundred grains of sugar contain about one seventh of a grain less carbon, about three eighths of a grain more of oxygen, and two ninths of a grain more of hydrogen than are contained in one hundred grains of starch. These are trifling differences ; and, without reference to atomic considerations, it will immediately strike the inquirer that differences by far greater than these frequently occur in the analyses of the same body executed by different chemists, or by the same chemist at different times ; and, in illustration, I adduce the analyses of sugar by the chemists already quoted, wherein the quantity of carbon as stated by Berzelius, is very nearly two grains more than what is stated by Gay-Lussac and Thenard. In short, we may conclude that analysis has not been hitherto able to detect any difference

of composition between starch and sugar; and we may admit that, in both, the ingredients are the same in *quality* and *quantity*.

“ A person who contrasts their strikingly different properties; who considers that starch is one of the most insoluble bodies, at least in cold water, and sugar the most soluble; that sugar is the sweetest of all substances, and starch the most tasteless; will naturally inquire how are these facts to be reconciled; and if the composition is the same in both substances, why are not the substances identical?

“ The question is natural: at least, it would have been natural and necessary some time ago, when it was supposed that similarity of ingredients and of proportions should produce similarity of qualities. Modern discoveries have proved that this is a mistake. It is now known that, beside quality and quantity of ingredients, the peculiar mode of combination of them is to be taken into account; and, although we know, in fact, nothing about the modes of combination in which bodies exist, yet chemists have been, in a manner, compelled into this mode of explanation by the impossibility of explaining it otherwise in the present state of knowledge. In the case of starch and sugar, therefore, we know that the ingredients are the same; we may infer that the relative quantities of them are also the same; but, to assign a reason for the difference of properties, we say that they are differently combined, without pretending to say whether the difference is a closer

approximation of particles, so as to expose them more effectually to each other's modifying powers; or whether it depends on some other cause. Considerations of relative specific gravities give us no information on the subject.

“Be this as it may, one would be induced to conclude that similarity of composition would give origin to a great facility of converting one substance into the other; and this is just what we find to be the case in practice.”*

Dr. Turner in his Chemistry, says, “the proportion of the constituents of starch is, therefore, very analogous to that of sugar, a circumstance which will account for the conversion of the former into the latter. This change is effected in seeds at the period of germination, and is particularly exemplified in the process of malting barley, during which the starch of that grain is converted into sugar.”†

Dr. Henry says, “the equivalent of starch, if deduced from its ultimate analysis, would approach very closely to that of sugar. It is probable, indeed, that in this as well as in other instances of vegetable compounds, the difference consists merely in the manner in which the elementary atoms are arranged:

* Dr. Lardner's Cabinet Cyclopædia. Domestic Economy: By Michael Donovan; M. R. I. A. Professor of Chemistry to the Company of Apothecaries in Ireland. 1830. Vol. 1st. Pages 66 and 67.

† Elements of Chemistry: By Edward Turner, M. D. F. R. S. Third Edition. Page 749.

a view of the subject with which the conversion of starch into sugar by processes not attended with the evolution of any gaseous products, is perfectly consistent.” *

Dr. Henry also says, “Gum arabic has been analysed by Gay-Lussac and Thenard, and by Berzelius, and found to consist of

Carbon	42.23	41.906
Oxygen	50.84	51.306
Hydrogen	6.93	6.788
	<hr/>	<hr/>
	100.	100.” †
	<hr/>	<hr/>

The same distinguished chemist, says, “Gay-Lussac and Thenard, and Berzelius, have analysed it”—sugar—“by combustion with hyperoxymuriate of potash, and find it to consist of

Carbon	42.47	44.200
Oxygen	50.63	49.015
Hydrogen	6.90	6.785
	<hr/>	<hr/>
	100.	100.
	<hr/>	<hr/>

Or of Carbon	42.47
Oxygen and Hydrogen, in the same proportion as in water	57.53
	<hr/>
	100.
	<hr/>

* The Elements of Experimental Chemistry: By William Henry, M.D. F.R.S. 9th Edition. 1823. Vol. 2nd. P. 248.

† Dr. Henry’s Elements of Experimental Chemistry. 7th Edition. 1815. Vol. 2nd. P. 188.

“ It is remarkable that these are, as nearly as possible, the proportions of the ingredients of *gum arabic*.”*

Mr. Brande, in his *Manual of Pharmacy*, says, “ the components of *sugar* differ little in their relative proportions from those of *gum* and *starch* ; indeed the latter substance is convertible both into sugar and gum.” †

Dr. Daubeny says, “ the *sugar* from the cane, and from the urine of diabetic patients, agrees as nearly in point of composition with the sugar of milk, with *manna*, and with *gum arabic*, as the several varieties of cane-sugar do with each other.” ‡

The result then is that sugar, honey, manna, starch, and gum arabic, are identical both in the quality and quantity of their component parts.

In fact Gay-Lussac and Thenard have laid down the following three laws with regard to vegetable substances :

If the oxygen and hydrogen exist in the exact proportion necessary to form water, the vegetable substance is neither acid nor resinous, but it is sugar, manna, honey, starch, gum, lignin, or some such body.

* *Ibidem*. Vol. 2. Pp. 191, 192.

† Brande's *Manual of Pharmacy*. Edition, 1833. P. 187.

‡ *An Introduction to the Atomic Theory* : By Charles Daubeny, M. D. F. R. S. Page 79.

If the oxygen be to the hydrogen in a proportion greater than is necessary to form water, the substance is a vegetable acid.

If the hydrogen be to the oxygen in a proportion greater than is necessary to compose water, the substance is always oil, resin, wax, alcohol, ether, &c.

So that sugar, starch, gum, &c., may be considered as composed of carbon and water only; vegetable acids may be considered as composed of carbon, water, and oxygen; wax, oils, resins, alcohol, ether, &c., may be considered as constituted of carbon, water, and hydrogen.

Now, as the great bulk of the vegetable food we take, consists of starch, or gum, or sugar, as you all know very well without my explaining it, and as starch and gum resemble sugar so closely, is it at all improbable that from an imperfect or a deficient assimilation having taken place in the stomach, or, if you will, from no assimilation having taken place, that the gum and starch carried unchanged to the kidneys, should there be by a morbid process converted into sugar?

Rollo, Cruikshank, and Marcet, had maintained that the sugar was formed in the digestive organs, and might be detected in the blood. Dr. Wollaston found that the serum of the blood does not contain a thirtieth part of the sugar which is found in an equal quantity of urine. Vanquelin and Segalas found that there was not an atom of sugar in the blood of a diabetic patient whose urine contained

one seventh part of sugar. Mr. Halliday, an ingenious chemist of this town, and teacher of chemistry at the Mechanics' Institution, examined, for me, the serum of the blood of a patient labouring under diabetes mellitus, and found that it presented no indication of the presence of either starch or sugar. It is now the general opinion that the blood contains no sugar.

I consider then that sugar is formed in the kidneys of patients labouring under diabetes mellitus; and that its formation depends upon some slight change produced upon the starch and gum which are carried in an un-assimilated state to the kidneys. Now, although the detection of starch or vegetable mucilage in the serum of the blood would fully confirm the theory just laid down, yet its non-detection would be very far indeed from overthrowing the aforesaid theory. It has long been an opinion among the best physiologists, that there is a direct passage from the stomach to the kidneys; and it is a remarkable fact that substances which have not been formed in the kidneys have been detected in the urine, and not in the blood. For instance, I gave to William Grimshaw, a diabetic patient of mine, three grains of ferro-cyanate of potash, every hour for about twelve doses. I then took a portion of his urine and added to it a few drops of nitric acid; I then poured in a small quantity of a solution of sulphate of iron. The consequence was the production of a beautiful blue

colour. Then abstracting about four ounces of blood, I made upon the serum a similar experiment to the one just related, without the production of any blue tint whatever: but upon adding a little of the solution of ferro-cyanate of potash, a vivid blue tint was produced. I immediately repeated the experiment upon his urine, and with the same success as before.

The urine in diabetes mellitus, in addition to the sugar which it holds in solution, also contains more or less of muriate of soda; it shows hardly any traces of sulphates or phosphates; it has no free acid; and it does not contain any sensible quantity of urea, or of uric acid.

With regard to the excess in the quantity of fluid evacuated as urine, over the quantity taken in as drink, its source is evidently to be found in the hydrogen and oxygen, which exist in the amylaceous, mucilaginous, and saccharine parts of our solid food, exactly in the proportions which constitute water; as already explained.

Upon opening the bodies of those who have died of diabetes there have been found, on the one hand, all the marks of a chronic gastro-enteritis, on the other hand, a complete hypertrophy of the kidneys.

Among the predisposing and exciting causes of diabetes may be reckoned the living in a low, humid, cold, and foggy country, which has a tendency to impede the perspiration, and thereby to throw an excess of labour on the kidneys; the drinking copi-

ously of cold water, when overheated; the taking in of a large quantity of vinous or spirituous drinks; excessive labour; frequent hemorrhagies; purgatives; the abuse of diuretics; great vexations of mind. Sometimes we can trace no predisposing or exciting cause whatever.

With regard to the proximate cause, or the essence of diabetes, I am disposed to agree with M. Dezeimeris,* and the more so, as I had already delivered the same opinion to you in this room, in the case of John Wright, before I had even heard of the opinion of M. Dezeimeris. The opinion is this, that the proximate or essential cause of diabetes is an irritation of the kidneys. This irritation is seldom primitive; it is most commonly only a consequence of gastro-enteritis, more especially chronic gastro-enteritis. In the course of this last mentioned disease, there comes on an excessive thirst; the patient drinks a great deal; he voids urine in proportion. This state becomes chronic. The activity of the kidneys is increased at the expense of the other excretory organs; and thus the kidneys throw out from the animal economy a quantity of fluid which must be incessantly renewed: hereby the thirst is again increased, and a circle of diseased action, thirst and diuresis, or rather hyperuresis, is established and maintained, even after the gastro-enteritis with which the disease commenced has been removed.

* Mémoires de la Société médicale d'emulation. Tome 9c.

It has been objected to this theory, that on the opening of some patients who have died of diabetes, no marks of gastro-enteritis have been discovered; and also that many patients labour under gastro-enteritis, without having shown any symptoms of diabetes.

To these objections I have to answer; that comparatively few instances of *post-mortem* examinations of persons who have died of diabetes have taken place; that, until lately, it has not been much the custom to examine the mucous membrane of the alimentary canal, after death, in any disease, and still less in diabetes, in which disease no injury of the mucous membrane of the alimentary canal was suspected; that, in those cases in which the alimentary canal was examined and found comparatively healthy, if any such have been, the disease might have begun with a true gastro-enteritis, which, having established the circle of thirst and hyperuresis, might subside from the operation of the vast quantity of diluting fluids taken in, and leave the thirst and hyperuresis to go on with their former energy. Lastly, to the objection that many patients labour under gastro-enteritis without having shown any symptoms of diabetes, I can only conjecture that this may occur from the circumstance that the kidneys are not in every case alike disposed to take upon themselves the action of hypertrophy; but why they are not in every case alike disposed to take upon themselves this action, is, I fancy, among

those secrets of nature which we shall never be able to develope. We know not, I say in reference to this last objection, why sometimes gastro-enteritis produces head-ache, sometimes synochal fever, sometimes vomiting, sometimes purging, sometimes costiveness, sometimes cholera, sometimes phthisis, sometimes diabetes, sometimes both phthisis and diabetes. These are things which it is our business to study, and, if possible, discover.

The *diagnosis* of diabetes is exceedingly simple. Has the patient great thirst? Yes. Does the patient void an extraordinary quantity of urine? Yes.—The disease is therefore diabetes. Is the urine insipid, and of a small specific gravity? Yes.—The disease is diabetes insipidus. Is the urine sweet, and of a great specific gravity? Yes.—It is diabetes mellitus.

To speak in general of the *prognosis* of this disease, we must admit that it is *bad*; and, yet, in whatever point of view we look at diabetes, whatever theory we adopt as to its origin and character, there does not appear to be any thing necessarily desperate about it. We frequently read of cures performed; but whether those cures are permanent or not, is what the authors generally do not inform us. To lessen the quantity of urine,—give no drink; to prevent the secretion of sugar,—take care that the patient eats nothing that has sugar, starch, or gum in it; that is, let him have nothing but animal food. But, seriously speaking, nothing is more common

than a relapse in this disease. So, that I still say, the general prognosis is bad; and I entertain great doubts whether or not a single permanent cure has ever been performed. But, still it is our duty to persevere; more especially, seeing, as I said just now, that there does not appear any thing necessarily desperate about the disease. On the 1st of September last, Dr. Jacob, of Dublin, went round the Infirmary with me; I showed him a case of diabetes which I have now in the house. He asked me if I expected to cure it. I replied, that I could hardly tell; but that I thought if I absolutely despaired of curing it, I most likely never should cure it; that I, therefore, went on as if I were certain of success; and that, in order to keep up the patient's spirits, I gave her to understand there was a very great chance for her.

In speaking of the treatment of diabetes I shall not think it worth while to trouble you with any of the ancient physicians except Celsus. In his fourth book, chapter twenty, the second section, entitled "*De urinæ nimiâ profusione;*" he says, "*At, cum urina, super potionum modum, etiam sine dolore, profluens, maciem et periculum facit, si tenuis est, opus est exercitatione et frictione, maximèque in sole, vel ad ignem. Balneum rarum esse debet, neque longa in eo mora; cibus comprimens; vinum austerum meracum; per æstatem, frigidum; per hiemem, egelidum; sed tantum, quantum minimum sit. Infima alvus quoque vel ducenda vel lacte*

purganda est. Si crassa urina est, vehementior esse debet et exercitatio et frictio : longior in balneo mora : cibis opus est teneris : vinum idem. In utroque morbo vitanda omnia sunt, quæ urinam movere consuêrunt.” In these directions of Celsus it would be difficult to discover the shadow of a rational principle, except, perhaps, in the last ; “ in utroque morbo vitanda omnia sunt, quæ urinam movere consuêrunt.”

What Sydenham says respecting diabetes is really hardly worth copying, but he lays down the indications of cure to be, firstly, to enrich and strengthen the blood ; secondly, to stop the preternatural discharge by urine. He then gives us two very long and unmeaning prescriptions, according to the plan of his day ; and concludes by saying “ the patient’s diet should be food of easy digestion, as veal, mutton, and the like ; he must forbear garden herbs, and fruits of all kinds, and drink Spanish wine at meals.”*

Dr. Macbride † begins his observations on the treatment with a very correct remark. “ This disease,” he says, “ is very difficult to cure.” He mentions alum-whey, made by throwing three drachms of powdered alum into two quarts of milk, and taken to the quantity of four ounces thrice

* Sydenham’s Answer to Dr. Brady ; section 35.

† A method. introd. to the Theor. and Pract. of Phys. London. MDCCCLXXI. P. 483.

a-day, as having been recommended by Dr. Mead. He also mentions lime-water, in which a due proportion of oak-bark has been macerated. He says that Bristol water has succeeded in some cases; in others, the chalybeate waters. He concludes his observations on the treatment in the following words. "The scheme in all these cases must be, to restore freedom to the cutaneous discharge; and, by that means, recal the watery fluids from running too much to the uropoietic organs; hence keeping the body warmly clothed will be of great use."*

Borsieri, in his lectures, says when this disease has attained a height, it hardly yields to any remedies.—Upon the whole, he says, the treatment is to be by correctives, and such remedies as restore to the blood its proper crasis, and strength to the solids, and chiefly to the kidneys. He then mentions the *serum lactis aluminosum*; cow's milk boiled with the water of plantain; calf's-foot-jelly; the soup of frogs; the cream of rice, barley, or oats; farinaceous pottage of sago, and similar articles; emulsions of cold seeds and sweet almonds; gum-arabic and gum-tragacanth; and anodynes of nymphæa, purslane, and white poppy. To these he adds astringents and strengthening remedies; especially chalybeates, tincture of bark, and so forth. It is likewise not improper, he says, to employ external astringents, to be applied to the region of the kidneys. He

* Ibidem. P. 484.

concludes by saying the drink ought to be prepared with steel, and strong wine may be employed.*

Thus far, you see, the directions of authors for the cure of this complaint resemble the directions we give to children for catching a bird ; put a little salt on its tail, &c. So, the old authors say, stop the excessive secretion of urine, and you will cure the complaint.

Dr. Cullen, however, makes the following sensible and candid remarks. “The proximate cause of diabetes being so little known or ascertained, I cannot propose any rational method of cure in the disease. From the testimony of several authors, I believe that the disease has been cured: but I believe also that this has seldom happened; and when the disease has been cured, I doubt much if it,” the cure, “was effected by the several remedies to which these cures have been ascribed. In all the instances of this disease which I myself have seen, and in several others of which I have been informed, no cure of it has ever been made in Scotland, though many instances of it have occurred, and in most of them the remedies recommended by authors have been diligently employed. I cannot, therefore, with any advantage, enter into a detail of these remedies, &c.”†

* “The Institutions of the Practice of Medicine.” Vol. v. Part 2nd. Chapter xvii. Sect. 206.

† Cullen: First Lines of the Practice of Physic. Paragraph, 1513.

In the year 1797, Dr. Rollo published a number of cases of the successful treatment of diabetes mellitus on the plan of keeping the patient nearly entirely to a diet of animal food, with some form of hepatised ammonia, conjoined with almost perfect rest.* Dr. Rollo adopted this plan from an idea that the disease depends upon a morbid condition of the stomach, by which the vegetable food is converted into sugar. In this point of view it was a very obvious plan to give the patient for food little or nothing but animal fibrine, in which the carbon, oxygen, and hydrogen exist in a very different proportion from that in which they exist in starch, gum, and sugar, and which, besides, contains a large quantity of nitrogen, a substance which does not exist in any proportion in sugar. According to Gay-Lussac and Thenard, one hundred parts of fibrine are composed of

Carbon	53.360
Oxygen.....	19.685
Hydrogen.....	7.021
Nitrogen	19.934
	<hr/>
Total.....	100.000
	<hr/>

Now, whether the sugar be formed in the stomach or the kidneys, it is pretty plain that, taking no food but animal fibrine, the patient must cease to

* Cases of the Diabetes mellitus, &c. &c.: By John Rollo, M.D., Surgeon-General, Royal Artillery. Second Edition. MDCCXCVIII. Page 29.

manufacture sugar. But, I believe that the sugar is not formed in the stomach; for, as I said before, we find that there is none of it contained in the blood. Yet it is possible that it may be conveyed to the kidneys by some short cut, as we have reason to believe is the case with the ferro-cyanate of potash which you saw was detected in the urine, but not in the serum of the blood. If, however, the sugar were formed in the stomach, it would be tasted by the patient every time he vomited, or even eructated a little of the contents of the stomach into the mouth. But, of such a thing we have never been told.

It is astonishing what a vogue Dr. Rollo's plan of treatment has had from the year 1797, when he first published it, almost to the present day.

M. Renauldin, in a most elaborate article in the "Dictionnaire des Sciences Medicales," lays it down, "Que le traitement conseillé par Rollo, employé ensuite avec tant de succès par nos compatriotes M. M. Nicolas et Genderille, et qui consiste surtout dans un régime purement animal, a le même degré d'efficacité que le quinquina dans les fièvres intermittentes."* Renauldin wrote in 1814, a good long run for a theory from 1797.

Let any one, however, look at the tongue of a diabetic patient; let any one read Dr. Rollo's account of Captain Meredith, who, "after eating

* Dictionnaire des Sciences Medicales. Tome 9me. Article, Diabetes. P. 146.

had a pain of his stomach which continued often half an hour ;” his case of “ a general officer,” who “ had a heat of his stomach after breakfast ;” and say if he think it likely that an animal diet could effect a cure.

The late Dr. Duncan, senior, of Edinburgh, addressed a letter to Dr. Rollo, dated 13th January, 1797, to the following purport: “ In a case of diabetes which I treated, about twenty years ago, I found that the use of fat meat had a surprising effect in alleviating the thirst, and diminishing the quantity of urine. But the effect was temporary only, and I have not found it to hold to the same extent with other patients.”

I believe this might be said in the present day with equal truth. In the first place, it is very difficult to confine patients to an animal diet ; in the second place, I believe an animal diet never effects a cure, although it will certainly prevent the formation of sugar ; in the third place, when it seems to effect a cure, the patient is sure, sooner or later, to relapse. What I want, is, that a physician should show me a patient, and say this man or this woman was cured by me ten years ago, by means of an animal diet, of an undoubted diabetes mellitus, and has since experienced no relapse.

It has been reported, it really is not worth while to say where, that two cases of diabetes mellitus were cured by calcined magnesia, the one in a week, the other in a fortnight.

It is also reported, and it is equally of little importance to say where, that the diabetes mellitus has been cured by the phosphate of soda; in two cases likewise.

The celebrated Pinel, in his *Nosographie Philosophique*, says, “Dans un cas de diabète causé par des chagrins profonds, et parvenu déjà au dernier degré, un malade à qui je donnais des soins l’année passée a été guéri en séjournant à la campagne, en se livrant à un exercice régulier, en sortant de son abatement, et en insistant autant sur le régime végétal que sur toute autre substance.”*

The celebrated Dr. Baillie used to prescribe about fifty drops of laudanum daily, in an infusion of rhubarb or of calumba.

In the *London Medical Repository* for February, 1823, is a case by Dr. Heinekin, in which a cure of diabetes was performed by opium, scammony, and calomel, the hot bath, frictions with olive oil, and flannel next the skin. The patient, from the third of June to the eighth of October, took about six hundred grains of opium. He took at one time as much as thirty-six grains in the twenty-four hours.†

The Dover’s powder, and opium uncombined with ipecacuanha, have been given in large doses

* Pinel: *Nosographie Philosophique*. Tome 2nd. Paragr. CCXIX.

† *London Medical Repository*. February, 1823. Page 126.

by Dr. P. Warren; the opium was given to the extent of ten grains four times a day.* I believe I do not go beyond the truth when I say that, in this part of the world at least, the opium usually cures the complaint by killing the patient.

Dr. Watt, of Glasgow,† many years ago recommended the plan of bleeding, which has been since pursued by Dr. Satterley, and with even greater success.‡

Doctor George Lefevre has published|| a case of diabetes mellitus cured by bleedings and the vapour bath. This I consider the most rational plan I have yet mentioned. It has always been observed that diabetic patients support repeated bleedings not only without injury, but with advantage, and yet this fact has not been sufficient to bring and to keep practitioners to this method.

And now, having gone over most of the plans of cure that have hitherto been proposed, I may have the question put to me by you, What plan do you propose? To which I answer, that I do not know that by any plan I can cure diabetes. If diabetes

* Medical Transactions published by the College of Physicians in London. Vol. 4th. Article 16th. Page 208.

† Cases of Diabetes: By R. Watt, M. D.

‡ Medical Transactions published by the College of Physicians in London. Vol. 5th. Article 1st. Page 1.

|| London Medical and Physical Journal. Vol. 55. 1826. Page 366.

consist of a chronic gastro-enteritis with hypertrophy of one or of both kidneys, we know, for daily experience tells us, that chronic gastro-enteritis is a very tedious and troublesome disease, which may last for months, and even for years, and may, perhaps, not be cured after all. We may reasonably suppose that hypertrophy of the kidneys is a disease at least as difficult to cure as chronic gastro-enteritis is.

However, I will tell you candidly what I should propose, without, at the same time, making the slightest promise of success. To the patient, indeed, you should always promise success, as it is a great point in the treatment of many diseases, and more especially of diabetes, to relieve the patient of that excessive depression of spirits which is undoubtedly a great hinderance to a cure. I, therefore, always put on an air of the most sanguine expectation. If there be the least improvement, I dwell upon it with an expression of satisfaction; and I avoid showing any thing which may lead the patient to suppose I have any doubts of ultimate success.

Now, in the first place, if the patient's strength will admit of it, I would draw blood from the arm; I would apply leeches to the epigastrium; I would apply cupping-glasses over the kidneys; I would order farinaceous and mucilaginous diet, with barley-water, rice-water, or milk and water, to drink; I would give the patient the hydrargyrum

cum cretâ, and the pulvis ipecacuanhæ compositus, in large doses; I would place the patient in a vapour bath, a sulphur bath, or a hot bath, or both, every day; I would order flannel to be worn next the skin; I would keep the patient, for the most part, in bed. If the bowels were costive, I would open them by means of castor-oil. If diarrhea existed, I would apply leeches to the belly or to the anus, and give laudanum in chalk-mixture.

But you will observe that I am of opinion, if the disorganization of the stomach, or of one or both kidneys, have proceeded to a certain extent, then a cure is absolutely impossible by any means whatever; yet the inconveniences of the complaint may be, in some degree, removed, and life may be prolonged even in this sad state of affairs. The urine may be brought down, and kept down in quantity; and the patient may be rendered, in some degree, comfortable.

CASE LXXXVIII.—Diabetes insipidus. The insipid Diabetes.

12th August, 1833.

Hannah Wardle, a widow, aged 40 years, a sempstress, says she has been ill two years. Her complaint came on with intense thirst, and an increased flow of urine which has been daily augmenting.

At present the symptoms are, tongue coated in the centre with a thick white fur, red at the tip and edges; no appetite; *not* a sweet taste in the mouth; incessant thirst; drinks many pints of

water in the twenty-four hours ; makes as much as she drinks or more of urine, which is perfectly insipid ; bowels have lately been much purged, and still continue very loose ; pulse 140, very feeble ; skin cold and always dry ; cannot sleep at all ; a little cough ; pain in the bowels.

℞ Tincturæ Opii m. xxx.

Haustûs Olei Ricini f̄vi. Misce.

Fiat haustus statim sumendus.

13th. Bowels less purged. (See table, page 352.)

To have ten leeches to the epigastrium.

A blister-plaster to the epigastrium, and common poultices afterwards.

℞ Tincturæ Opii f̄j.

Vini Ipecacuanhæ f̄ij.

Misturæ Camphoræ f̄vss. Misce.

Sumatur f̄jss. quater quotidie.

14th. Purging returned. Pulse 120, very feeble.

℞ Hydrargyri cum Cretâ gr. x.

Pulveris Ipecacuanhæ compositi gr. v.

Fiat pulvis quater quotidie sumendus.

15th. Bowels continue purged. Pulse 128, very feeble.

16th. Is less purged. Pulse 128.

17th. Was much purged yesterday. Pulse 120.

18th. Is still purged.

To take the mixture six times a day.

19th. Pulse 120.

20th. Has been less purged. Tongue moister, less coated.

Appetite improved. Pulse 120, still feeble.

21st. Purging abated. Pulse 120, less feeble.

22nd. Mouth very sore. Bowels have been moved twice.

Pulse 116, stronger.

A diluted acetic acid wash for the mouth.

Cupping-glasses on the kidneys, to four ounces of blood from each kidney.

A blister-plaster on each afterwards.

23rd. Bowels regular. Motions solid. Pulse 110.

24th. Pulse 120, strong. Bowels not loose.

To have the vapour bath every evening.

25th. Pulse 120, small. Bowels regular; feces solid.

26th. Pulse 100. Bowels healthy. Mouth very sore from the mercury.

To omit the powders.

To take four times a day, five grains of the Pulvis Ipecacuanhæ compositus.

27th. Feels better. Slept more comfortably. Bowels very regular. Pulse 100, less feeble.

To have ten leeches to the epigastrium.

A blister-plaster afterwards.

29th. Was purged four or five times in the night. Pulse very quick and feeble.

To have six leeches applied to the anus.

To omit the mixture.

℞ Tincturæ Opii fʒj.

Vini Ipecacuanhæ fʒij.

Misturæ Cretæ fʒvss. Misc.

Sumatur fʒjss. quater quotidie.

30th. Bowels not open. Sleeps very little. Sweats much after the bath. Feels herself much weaker. No appetite.

To have two ounces of French brandy in the day.

1st September. Bowels open three or four times in the night; but not loose. Pulse 100, weak.

4th. Tongue rather cleaner. Bowels natural. Feels no pain. Pulse 100, feeble.

To omit the brandy.

To increase the Compound powder of Ipecacuan to seven grains, four times a day.

9th. Says she feels a sinking, and a gnawing sensation in her stomach. Bowels not moved since yesterday.

11th. Pulse feeble and fluttering. Tongue less thickly coated. Appetite rather improved. Bowels natural.

14th. Feels better. Appetite not so good. Thirst still great. Tongue coated; rather red.

16th. Pulse 100, stronger. Sleeps better. Bowels natural.

R Hydrargyri cum Cretæ gr.x.

Pulveris Ipecacuanhæ compositi gr.v. Miscæ.

Fiat pulvis quater quotidie sumendus.

18th. Feels rather better to-day.

To have the sulphur bath every morning.

19th. Sweated much after the bath.

To have six leeches to the epigastrium.

To lie in bed.

20th. Says she feels faint after the sulphur bath.

To exchange the vapour bath to the warm bath, at 104.

To omit the powders.

To take ten grains of the Compound powder of Ipecacuan four times a day.

21st. Felt so faint in the bath yesterday, she did not go to-day. Pulse 80, feeble. Bowels regular. Feels sick.

22nd. Feels better this morning. Endured the bath very well.

24th. Feels improved.

To have six leeches to the epigastrium.

Common poultices afterwards.

26th. Tongue nearly clean to-day, but very red. Pulse 95, feeble.

27th. Fainted in the sulphur bath to-day.

29th. Throat very sore.

To have four leeches to the external part of the throat.

30th. Throat is better. Does not perspire much after the bath. Ordered to take hot tea.

1st October. Tongue becoming clean, but is very red. Pulse 90, soft. Skin moist.

2nd. Tongue is again very aphthous. Pulse 100, small.

To have six leeches to the epigastrium.

4th. Pulse 100, feeble.

R Sodæ Subboratis ʒj.

Tincturæ Opii fʒj.

Aquæ ad fʒvi. Miscæ.

Sumatur fʒjss. quater quotidie.

To omit the other mixture.

- 8th. Feels much as usual. Bowels open.
To have six leeches to the epigastrium.
- 9th. Tongue clean, free from aphthæ, but still red. Bowels regular. Says she feels well.
- 12th. Pulse natural. Skin cool. Tongue red.
To have six leeches to the epigastrium.
- 13th. Pulse 90, small and feeble. Tongue not aphthous, but still very red. Bowels open. No appetite. Not much perspiration.
- ℞ Sodæ Subboratis,
Sodæ Phosphatis, āā ʒj.
Liquoris Calcis Chloridi,
Tincturæ Opii, āā fʒj.
Aquæ puræ q. s. ad fʒvi. Miscé.
Sumatur fʒjss. quater quotidie.
To omit the other mixture.
- 17th. Feels as usual. Pulse 95, stronger.
To have six leeches to the epigastrium.
- 19th. As before.
To omit the mixture.
- ℞ Sodæ Subboratis ʒiij.
Tincturæ Opii fʒj.
Aquæ puræ q. s. ad fʒvi. Miscé.
Sumatur fʒjss. quater in die.
- 20th. Bowels rather costive.
To take occasionally two fluid ounces of the Mistura Magnesiæ Sulphatis.
- 21st. To omit the Mistura Magnesiæ Sulphatis.
℞ Sodæ Phosphatis ʒj.
Aquæ puræ fʒviii. Miscé.
Sumantur fʒij. pro rê natâ.
- 23rd. Much the same.
To have four leeches to the epigastrium.
- 24th. Does not feel so well this morning. Vomited her medicine last night. Still feels sick. No appetite. She is very languid and feeble.

25th. Feels better this morning. Tongue clean. Bowels opened by the mixture.

26th. To have a blistered place raised on the epigastrium, and afterwards to have the surface deprived of cuticle sprinkled with ten grains of the sulphate of quinine.

29th. Pulse 100, feeble. Tongue very apthous. Complains of the pain from the blister.

To have the vapour bath every night.

30th. Mixture produces sickness.

To omit the mixture of borax.

To take two grains of sugar of lead, and an eighth of a grain of Acetate of Morphine, in a pill, four times a day.

31st. Thirst increased. Feels rather worse.

To omit every thing.

To heal up the blistered surface.

To take the warm bath every night.

To take ten grains of the compound powder of ipecacuanha, four times a day.

R Sodæ Subboratis ʒj.

Tincturæ Opii f ʒj.

Aquæ puræ f ʒvi. Misc.

Sumatur f ʒjss. quater quotidie.

2nd November. Feels much worse. Is very weak, or as she expresses it, "quite done." Has no particular pain. Pulse quiet.

Skin cool. Tongue red, with apthæ on it.

3rd. Bowels costive.

To have occasionally two fluid ounces of the Mistura Magnesie Sulphatis.

4th. To omit the Mixture of Borax.

R Misturæ Ammonie Acetatis f ʒvi.

Tincturæ Opii f ʒjss. Misc.

Sumatur f ʒjss. quater quotidie.

5th. To have four leeches to the epigastrium.

9th. Pulse 90, feeble. Bowels rather loose and griped.

To omit the other mixture.

℞ Tincturæ Opii f̄3ij.

Misturæ Camphoræ f̄3vi. Miscæ.

Sumatur f̄3jss. quater quotidie.

11th. Much purged in the night.

To have half a pint of beef-tea daily.

To have two ounces of French brandy daily.

12th. Purging continues.

To have one pint of beef-tea daily.

13th. Purging ceased. Pain in the lumbar region.

14th. Feels very feeble.

To take of hot milk a pint, of alum a drachm, mix, strain, and let her drink the serum.

16th. Complains of a troublesome cough. Bowels much purged; considerable pain in them.

℞ Pulveris Cretæ compositi cum Opio ʒj.

Misturæ Cretæ f̄3vi. Miscæ.

Sumatur f̄3jss. quater quotidie.

17th. Purging continues.

To take of alum two drachms, of hot milk a pint, mix, strain, and let her drink the serum.

℞ Tincturæ Opii f̄5ij.

Misturæ Camphoræ f̄3vi. Miscæ.

Sumatur f̄3jss. quater quotidie.

To omit every thing else.

19th. Pulse stronger. Says she is considerably better.

22nd. Pulse 100, not so feeble.

℞ Opii duri contriti,

Zinci Sulphatis,

Ferri Sulphatis,

Quininæ Sulphatis, āā gr.j. Miscæ.

Fiat pilula s. a. quater quotidie sumenda.

26th. To omit every thing.

To continue the warm bath.

℞ Cinchonæ corticis contriti ʒj.

Tincturæ Opii f̄5iij.

Ammonix Subcarbonatis gr.xl.

Aquæ puræ f̄viii. Miscæ.

Sumantur f̄ij. quater quotidie.

29th. Felt extremely ill since last report. Acute and constant pain in the abdomen. Nearly incessant vomiting. Had a draught last night with twenty-five drops of laudanum, but has had no relief. This morning she complains of very acute pain over the whole abdomen. It is much increased on pressure. Bowels not open since the accession of pain. Has had occasionally a desire, but no motion. Incessant vomiting. Tongue furred. Pulse 100, feeble.

To omit the French brandy.

To omit the beef-tea.

To omit the mixture.

To have ten leeches to the abdomen.

Common poultices afterwards.

To take one grain of calomel in the form of pill four times a day.

30th. Pains were much relieved by the leeches. Can bear pressure now. Bowels open. Tongue moist, red, and apthous. Vomiting allayed. Pulse 100, feeble. Skin hot and dry. No sweating.

2nd December. No vomiting. No purging. Cannot sleep.

To add to each pill one grain of opium.

3rd. Feels much better. No pain this morning. Bowels regular. Tongue less furred. Slept better last night. Pulse 110, small.

4th. Free from pain. Bowels regular. Tongue improved.

6th. Cough continues to trouble her. Pulse 90, very small.

To omit the pills.

To have four leeches to the epigastrium.

To take ten grains of the compound powder of ipecacuanha four times a day.

7th. Feels better. Tongue clean, not so red. No pain. The leeches relieved her stomach.

8th. Feels pretty well; but the cough is troublesome.

9th. Discharged relieved.

A TABLE of the weekly weight of the patient, the daily quantity of fluid she took, the daily quantity of urine she voided, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Aug. 13.	119	28	30	1001
14.		48	48	1001
15.		50	48	1000
16.		70	60	1002
17.		48	56	1001
18.		56	74	1001
19.		46	43	1002
20.	126	42	46	1002
21.		40	41	1001
22.		40	36	1001
23.		36	40	1002
24.		36	36	1002
25.		29	30	1001
26.		34	27	1001
27.	122	24	23	1001
28.		22	24	1001
29.		20	20	1001
30.		18	19	1001
31.		15	16	1002
Sept. 1.		17	18	1004
2.		17	16	1002
3.	121	16	18	1001
4.		15	16	1001
5.		14	15	1001
6.		12	13	1001
7.		12	13	1001
8.		12	13	1001
9.		12	14	1001
10.	121	13	15	1002
11.		11	13	1002
12.		11	13	1002

DIABETES.

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	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Sept. 13.		11	13	1003
14.		12	14	1003
15.		11	13	1002
16.		11	13	1002
17. 120		11	13	1002
18.		10	12	1001
19.		12	13	1000
20.		10	12	1003
21.		10	12	1002
22.		10	12	1002
23.		10	12	1001
24. 120		10	12	1003
25.		10	12	1002
26.		10	12	1002
27.		10	11	1002
28.		10	11	1001
29.		10	11	1002
30.		10	11	1002
Oct. 1. 121		10	10	1002
2.		9	10	1002
3.		9	10	1001
4.		9	10	1001
5.		9	10	1001
6.		9	10	1002
7.		9	10	1001
8. 120		9	10	1002
9.		9	10	1002
10.		9	10	1002
11.		9	8	1003
12.		9	8	1002
13.		9	8	1003
14.		9	8	1003
15. 122½		9	8	1001
16.		9	8	1002

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Oct. 17.	9	8	1000
18.	9	8	1004
19.	9	8	1003
20.	9	8	1003
21.	9	8	1001
22.	122	9	8	1001
23.	9	8	1001
24.	9	8	1001
25.	9	8	1001
26.	9	8	1001
27.	9	8	1001
28.	9	8	1001
29.	9	8	1001
30.	9	8	1003
31.	12	12	1002
Nov. 1.	12	12	1003
2.	9	14	1002
3.	10	12	1001
4.	10	12	1001
5.	123	9	11	1001
6.	9	10	1001
7.	9	10	1000
8.	9	10	1000
9.	9	10	1000
10.	9	10	1000
11.	9	10	1003
12.	123	9	8	1004
13.	8	8	1005
14.	8	8	1003
15.	8	8	1001
16.	8	8	1001
17.	8	8	1001
18.	8	8	1003
19.	123	8	8	1003

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Nov. 20.	8	8	1003
21.	8	8	1003
22.	8	8	1002
23.	8	8	1011
24.	8	8	1004
25.	8	8	1002
26.	121	8	8	1001
27.	8	8	1001
28.	8	8	1002
29.	9	10	1004
30.	12	9	1001
Dec. 1.	12	9	1001
2.	12	10	1001
3.	118	10	9	1000
4.	10	9	1000
5.	10	9	1001
6.	10	9	1001
7.	10	9	1001
8.	10	9	1001
9.	10	9	1002

OBSERVATIONS.

I think, gentlemen, there can be no doubt in the mind of any medical practitioner, who has well studied this case, that the two species of diabetes, the insipid and the honeyed, are perfectly worthy of being considered as two species of one common genus, diabetes. There seems to be no difference between the two, except that the one, the mellitus, contains sugar in the urine, the other, the insipidus, does not contain it. In the mellitus, too, the appetite is good: in the insipidus, the appetite is

bad. In all other symptoms they are exactly the same.

We gave this woman great relief, lowering the quantity of her urine from seventy-four pints daily, to eight or nine daily. But we could not keep her always in the house, and I shall not be at all surprised to learn that when she gets home, and recurs to her old habits of diet, the absence of the baths, and the absence of all medicine, and of all medical means, the disease shall have returned upon her in all its former vigour.

CASE LXXXIX.—Diabetes mellitus. Paruria mellita. The honeyed Diabetes.

10th September, 1833.

William Grimshaw, married, formerly a watchman, now a weaver, in the 38th year of his age, says that three years ago, being a public watchman, he was exposed to all kinds of weather; and he frequently got wet and drank freely of spirits. He has lately been a weaver, and lived on very poor diet. About nine months ago first perceived the accession of his disease. He felt much languor in his limbs, and was unwilling to exercise himself, or even rise from bed; he had lowness of spirits. The bowels were loose; he had about three or four spontaneous liquid motions every day. A sweet taste in his mouth, dry tongue, inordinate thirst. Increased flow and incontinence of urine. A sense of oppression in his stomach, and occasional sinking. Increased appetite for food. Vomited occasionally. Pain and dulness in the regions of the kidneys. Is much troubled with flatus. Has very restless nights. Sleep unsound. Often starts from bed under the impression of some horrid dream, or from pain in the calves of his legs.

On his admission, tongue very red, morbidly clean, papillæ much elevated. Fauces also red. A sweet and sometimes nauseous taste. Inordinate thirst. Appetite very good. No sickness or vomiting. Bowels loose. No pain at present in the stomach. When pressed over the right iliac region, complains of tenderness. Pain at his back. Pulse 96, feeble. Skin hot and dry. No cough. Much languor and depression of spirits. Flatus in his bowels, and pain in the calves of his legs.

To be bled from the arm to four ounces.

Rice diet, with lime water and milk.

℞ Hydrargyri cum Cretâ,

Pulveris Ipecacuanhæ compositi, āā gr.x. Misee.

Sumatur j. quater quotidie.

12th. Omit the powders.

13th. To be bled from the arm to four ounces.

14th. Bowels purged; motions loose.

To repeat the powders.

To have six leeches to the epigastrium.

18th. Mouth is sore.

To omit the powders.

To take ten grains of the compound powder of ipecacuan four times a day.

To have the vapour bath every night.

19th. Pulse 84, stronger. Has sweat considerably in the night.

To have cupping-glasses to the kidneys, to draw six ounces of blood from each.

21st. To have twenty-four leeches to the loins.

22nd. Tongue moist, but red. Bowels not loose. No pain.

24th. Pulse 90, strong and full.

Bleeding from the arm to fourteen ounces.

26th. Bowels twice open yesterday. Tongue as before.

Bleeding from the arm to sixteen ounces.

27th. Pulse very full.

Bleeding from the arm to sixteen ounces.

28th. Pulse quick and strong.

Bleeding from the arm to sixteen ounces.

29th. Pulse quick and strong. Less thirst.

Bleeding from the arm to sixteen ounces.

30th. The serum of the blood drawn, milky.

To have the sulphur bath and vapour bath every day.

To have hot tea after the sulphur bath.

1st October. Says he perspired more yesterday than ever he did before.

2nd. Says his urine tastes briny. Is at present in a comfortable perspiration.

Bleeding from the arm to twelve ounces.

Two ounces of the *Mistura Sennæ composita* four times a day.

3rd. Bowels freely moved. Feels better. Tongue dry and much glazed. Pulse 95, full, but compressible. Urine tastes salt, he says.

6th. Has more thirst.

Eighteen leeches to the epigastrium.

9th. Pulse 90, not so strong. Urine, he says, is not sweet, rather bitter.

Bleeding from the arm to ten ounces.

13th. The blood drawn yesterday presented a cupped and buffy appearance; but the buffiness is pale, and of a different nature from what is usually observed in inflammation.

15th. Much as before.

Ten leeches to the epigastrium.

16th. Pulse 90.

Ten leeches to the epigastrium.

17th. Pulse 95, full.

Ten leeches to the epigastrium.

21st. No change.

Six leeches to each kidney.

22nd. No change.

Ten leeches to each kidney.

23rd. Feels better this morning.

Ten leeches to the epigastrium.

26th. Pulse full and bounding.

27th. Pulse full.

Bleeding from the arm to ten ounces.

To omit the sulphur bath.

To take the hot bath every night instead of the vapour bath.

30th. Pulse 84, strong, full, and round.

Bleeding from the arm to ten ounces.

4th November. Pulse pretty strong.

Six leeches to the epigastrium.

5th. As before.

The sulphur bath every morning.

6th. Ankles swell. Pulse full and quick.

8th. Feels extremely feeble.

10th. Debility very great. Legs edematous.

11th. Debility continues.

To have half a pint of beef-tea daily.

12th. Still very feeble. Legs edematous. Pulse 90, feeble.

Spirits much depressed.

To have one pint of good beef-tea daily.

13th. Legs continue swelled.

To have a pint and a half of good beef-tea daily.

14th. No improvement.

To have five grains of alum in a powder four times a day.

15th. No unpleasant or sweet taste in his mouth.

To omit the Compound Ipecacuan Powder.

To take eight grains of alum four times a day,

16th. Has been much purged in the night. Feels very weak.

Pulse full and bounding.

℞ Tincturæ Opii ꝑʒij.

Misturæ Camphoræ ꝑʒvi. Misce.

Sumatur ꝑʒjss. quater quotidie.

17th. Purging much relieved.

20th. Has not a sweet taste in his mouth, and he says his urine tastes more bitter. Pulse 80, full.

℞ Tincturæ Opii ꝑʒj.

Misturæ Acidi sulphurici ꝑʒvi. Misce.

Sumatur f̄jss. quater quotidie.

22nd. Bowels very loose. Legs still edematous. Pulse 85.

℞ Zinci Sulphatis,
 Ferri Sulphatis,
 Quininæ Sulphatis,
 Opii duri contriti, āā gr.j.

Fiat pilula s. a. quater quotidie sumenda.

23rd. Swelling of the legs subsided. Tongue clean, but red.
 Pulse bounding.

26th. Much the same.

℞ Cinchonæ corticis contriti ʒj.
 Ammonia Subcarbonatis gr.xl.
 Tincturæ Opii f̄ʒij.
 Aquæ puræ f̄ʒviii. Miscæ.
 Sumantur f̄ʒij. quater quotidie.
 To continue the sulphur bath and vapour bath.
 To omit the other medicines.

28th. Legs edematous.

To have two ounces of French brandy daily.

2nd December. Much purged.

To omit every thing.

To have rice-diet.

℞ Tincturæ Opii f̄ʒj.
 Misturæ Cretæ f̄ʒvi. Miscæ.
 Sumantur f̄ʒjss. quater quotidie.

3rd. Purging somewhat abated.

To have one grain of opium in the form of pill four times
 a day.

4th. Purging has been very urgent. Edema much less.

To omit the pills and the mixture.

℞ Tincturæ Opii f̄ʒij.
 Misturæ Cretæ f̄ʒvi. Miscæ.
 Sumantur f̄ʒjss. quater quotidie.

6th. Purging relieved.

7th. Bowels not so loose as before.

Ten leeches to the epigastrium.

10th. Much the same.

Ten leeches to the epigastrium.

11th. Two loose motions in a day.

13th. Much the same. Pulse 100, strong.

The hot bath instead of the vapour bath every night.

Ten leeches to the loins.

R. Hydrargyri cum Cretâ gr.ij.

Confectionis Opii q. s.

Fiat pilula quater quotidie sumenda.

18th. Pain in his ankles. Legs rather swelled. Bowels open.

Tongue more natural. Pulse 80, strong.

Made an out-patient.

A TABLE of the weekly weight of the patient, the daily quantity of fluid he took, the daily quantity of urine he voided, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Sept. 10.	120			1037
11.		15	21	1040
12.		16	24	1037
13.		19	27	1032
14.		16	26	1035
15.		15	23	1035
16.		15	23	1036
17.	121½	17	25	1035
18.		16	26	1036
19.		15	22	1035
20.		19	26	1036
21.		14	22	1035
22.		14	19	1033
23.		15	21	1033
24.	116	15	21	1037
25.		16	22	1036
26.		15	19	1037
27.		20	22	1033

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Sept. 28.		14	16	1036
29.		10	14	1033
30.		15	16	1031
Oct. 1.	113 $\frac{1}{2}$	14	15	1036
2.		6	8	1032
3.		5	6	1035
4.		9	9	1034
5.		10	10	1031
6.		11	11	1036
7.		11	11	1038
8.	115 $\frac{1}{2}$	9	9	1035
9.		9	9	1032
10.		10	9	1028
11.		9	9	1033
12.		9	9	1035
13.		9	10	1031
14.		10	9	1036
15.	116	10	9	1034
16.		10	9	1034
17.		10	9	1035
18.		10	9	1035
19.		8	9	1035
20.		8	9	1034
21.		7	9	1040
22.	114	8	9	1042
23.		5	8	1042
24.		6	7	1040
25.		6	8	1040
26.		5	8	1040
27.		8	8	1041
28.		7	8	1037
29.	112 $\frac{1}{2}$	6	8	1036
30.		7	9	1037
31.		6	8	1037

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Nov. 1.		6	8	1037
2.		6	8	1037
3.		6	8	1034
4.		6	7	1034
5.	115½	6	7	1035
6.		6	8	1030
7.		6	8	1036
8.		6	8	1036
9.		7	8	1034
10.		7	8	1034
11.		7	8	1036
12.	117½	7	8	1036
13.		7	8	1035
14.		7	8	1035
15.		7	8	1034
16.		7	8	1034
17.		7	8	1034
18.		7	8	1036
19.	116½	7	8	1035
20.		7	8	1035
21.		7	9	1035
22.		7	8	1034
23.		7	8	1031
24.		7	8	1031
25.		7	8	1036
26.	118½	7	9	1033
27.		7	9	1034
28.		7	8	1035
29.		7	8	1035
30.		7	8	1020
Dec. 1.		7	8	1030
2.		7	8	1034
3.	113½	7	8	1034
4.		7	8	1031

		Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Dec.	5.	.....	7	8	1030
	6.	.....	7	8	1034
	7.	.....	7	8	1038
	8.	.....	7	8	1039
	9.	.....	7	8	1037
	10.	117½	7	8	1035
	11.	.....	7	8	1037
	12.	.....	7	8	1038
	13.	.....	8	8	1033
	14.	.....	7	8	1036
	15.	.....	7	8	—
	16.	.....	7	8	1036
	17.	121	7	8	1036
	18.	.....	7	8	1040

OBSERVATIONS.

That this patient laboured under diabetes we saw from the great quantity of drink he took, twenty pints a day, and from the great quantity of urine he voided, twenty-seven pints a day. That his diabetes was of the species called *mellitus*, we knew partly from the high specific gravity of his urine, which at one time reached 1042, partly by his saying it tasted sweet, and partly by our having the sugar produced from it, a very large proportion, presented to our notice by Mr. Halliday. It was seen to be complete sugar, such as is sold in the grocers' shops as brown sugar, and most certainly a spirit could be distilled from it. I forget the proportion of sugar which this man's urine contained; but that is a matter of no importance. His urine

contained no urea. We tried almost every plan that has ever been recommended, with him; but perhaps the bleedings answered the best. He certainly bore them uncommonly well. His drink was brought down from twenty pints daily to seven pints daily, and his urine from twenty-seven pints daily to eight pints. I apprehend he had been a man of intoxicated habits, and as he had been ill three years, it seems probable his stomach, and one or both of his kidneys, had arrived at a state which was really incurable. As it was, he was certainly much benefited by his residence in the Infirmary.

CASE XC.—Diabetes mellitus. Paruria mellita. Honeyed Diabetes.

17th September, 1833.

Francis Isdale, a farmer, married, aged 51 years, says the first accession of his disorder took place twelve months ago. He was then much exposed to the vicissitudes of the weather, and frequently got wet feet. He lived on very low diet, and suffered under depression of spirits. The first symptoms were intolerable thirst, much sweating at night, urine copious, very dry tongue, nauseous taste in his mouth, appetite pretty good, bowels costive, only one motion in two or three days, much flatus in the bowels, restless nights disturbed by dreams, occasional pain in the pit of the stomach, with a gnawing and sense of sinking before meals, pain in the right side and shoulder increased on inspiration, bilious tinge of the skin and conjunctiva, urine high-coloured, and feces clay-coloured, pain in the region of the kidneys.

All these symptoms subsided, some months ago, after three weeks medical treatment by Mr. Edward Lacy, surgeon, in King-

street, and he was well until five weeks ago, when he became affected in a similar manner. *His father died of this complaint.*

On his admission, the tongue was moist, much loaded with a white fur, the papillæ raised. He has a very nauseous taste, as of rotten eggs, in his mouth. His saliva tastes sweet. He has extreme thirst, which is best assuaged by cold water. Appetite is not so good. No vomiting or pain at the stomach. Bowels have hitherto been costive, but to-day he had two loose motions. He is much troubled with flatus. Pain on pressure in the right hypochondrium and occasionally in the shoulder. Obtuse pain in the region of the kidneys, increased by pressure. No pain in the limbs. Spirits depressed. Pulse 68, feeble. Urine is very copious, and has a sweet taste. One pint of it produced five drachms and two scruples of saccharine extract. It contains no urea.

To lie in bed.

To have rice diet, biscuit, and barley-water.

Bleeding from the arm to twelve ounces.

18th. Feels a little improved.

To have twelve leeches to the epigastrium.

To have the vapour bath every night.

R Hydrargyri cum Cretæ gr.x.

Pulveris Ipecacuanhæ compositi gr.v. Miscæ.

Fiat pulvis quater quotidie sumendus.

19th. Yesterday no pain in the stomach and bowels, and less pain in the back.

Cupping-glasses to each kidney to six ounces each.

20th. Pulse 96, small and feeble. Bowels costive. Pain in the back diminished.

Two ounces of the *Mistura Magnesiæ Sulphatis* occasionally.

21st. Bowels freely open.

To omit the mixture.

To continue the powders and the vapour bath.

Bleeding from the arm to sixteen ounces.

22nd. Tongue moister. Says the sweet taste has yielded to a

very sour one. Pulse 90, small. No pain in the back; feels a little in the lower part of the abdomen, when passing water. The serum of the blood was clear, rather scanty.

23rd. Has still a sour taste in the mouth.

To omit the powders.

To take ten grains of Compound powder of Ipecacuan four times a day.

24th. Bowels are still confined. Has less thirst. Sleeps better. Pulse 80, round and soft. Appetite improved. Feels no pain.

Two ounces of the *Mistura Magnesiæ Sulphatis* immediately, and to be repeated when required.

Bleeding from the arm to twelve ounces.

25th. Feels he is improving. Has had a copious motion. Tongue better. Less thirst: says the thirst diminishes after each bleeding. Pulse 86, soft. Skin very moist. Mouth and gums rather sore. Serum of the blood was clear but scanty.

26th. Thirst considerably diminished. Urine does not taste sweet. When visited this morning he was in a violent perspiration.

27th. Pulse 84, small. He could detect no sweetness in the urine; he says it is sour.

28th. Very little thirst. Pulse slow and regular.

To have an ounce and a half of the *Mistura Sennæ composita*.

30th. Keeps still in a state of perspiration. Feels well.

1st October. Pulse 64, small. Urine not sweet.

2nd. Pulse 80, soft.

Bleeding from the arm to sixteen ounces.

The sulphur bath every morning.

The vapour bath every evening.

4th. Urine tastes salt. Pulse 72, not full.

9th. Bowels quiet. No pain. Feels better. Tongue much cleaner. Has a better taste in his mouth. Appetite improved. Still perspires. Pulse 80, soft.

10th. Says his urine is quite briny. Tongue much cleaner. Feels very well.

13th. Pulse 60, feeble. Feels rather sick.

To have ten leeches to the epigastrium.

14th. Felt sick and giddy after the sulphur bath. Vomited his breakfast. Tongue much coated. Disagreeable taste in his mouth. Thirst increased. Pulse 72, feeble. Head-ache. Perspiration not so profuse.

15th. Is better to-day. Bowels costive. Pulse 76.

To have *Mistura Sennæ composita* occasionally as required.

18th. Feels much as usual.

20th. Tongue cleaner. A better taste. Appetite very good. Bowels regular. Pulse 78.

To have animal diet.

22nd. Feels hearty. Pulse 80, full and strong.

24th. No complaint.

26th. No change.

To have twelve leeches to the epigastrium.

27th. Tongue not yet clean, but much better. Pulse 80, regular.

29th. Tongue much more healthy. Perpires still very much. Pulse 80, regular.

To have twelve leeches to the epigastrium.

To take the powders three times a day.

30th. Pulse 72. Tongue nearly healthy.

To have twelve leeches to the epigastrium.

31st. Still improving.

To take the powders twice a day.

1st November. Feels quite well.

4th. Tongue getting clean. Bowels regular. Feels well.

5th. Feels very well. Tongue much improved. No bad taste in his mouth. Pulse 75, full and regular.

To omit the vapour bath.

To take the powder once a day.

7th. Continues well.

To omit the powder.

12th. Feels hearty. Tongue still whitish.

To have twelve leeches to the epigastrium.

17th. No complaint. Is in every respect well.
 18th. Discharged cured.

A TABLE of the weekly weight of the patient, the daily quantity of fluid he took, the daily quantity of urine he voided, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Sept. 17.	200½			1020
18.		18.	20	1025
19.		14.	20	1026
20.		18.	20	1025
21.		13.	20	1025
22.		10.	15	1022
23.		9.	13	1031
24.	190	9.	13	1026
25.		5.	10	1026
26.		5.	3	1026
27.		4.	3	1026
28.		4.	1½	1031
29.		3.	2	1030
30.		4.	2½	1022
Oct. 1.	190	5.	5	1021
2.		5.	6	1022
3.		5.	6	1021
4.		5.	6	1021
5.		5.	5	1020
6.		5.	4	1021
7.		5.	5	1021
8.	187	5.	5	1020
9.		5.	3	1015
10.		5.	3	1013
11.		5.	3	1015
12.		5.	3	1020
13.		5.	3	1014
14.		5.	4	1016

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Oct. 15.	185	5	4	1014
16.		5	4	1009
17.		5	4	1014
18.		5	4	1011
19.		5	4	1011
20.		5	4	1009
21.		5	4	1010
22.	186	5	4	1010
23.		5	4	1009
24.		5	4	1009
25.		5	4	1009
26.		5	4	1009
27.		5	4	1009
28.		5	4	1011
29.	187	5	4	1011
30.		5	4	1012
31.		5	4	1011
Nov. 1.		5	4	1011
2.		5	4	1010
3.		5	4	1010
4.		5	4	1011
5.	186 $\frac{1}{2}$	5	4	1009
6.		5	3	1013
7.		5	4	1012
8.		5	4	1012
9.		5	4	1009
10.		5	4	1011
11.		5	4	—
12.	190	5	4	1011
13.		5	4	1012
14.		5	4	1011
15.		5	4	1011
16.		5	4	1011
17.		5	4	1011

OBSERVATIONS.

This is a case of perfectly successful treatment of diabetes mellitus. We not only brought down the quantity of urine, but we also brought down the specific gravity. A high specific gravity is the best test of the existence of sugar; a low specific gravity is the best test of the non-existence of it. The quantity of this patient's urine was brought down permanently to four pints a day; the specific gravity was brought down to 1009. Now, this, I believe was done by the bleedings and the baths. Two or three months after he was discharged I saw him, and his urine was still at four pints daily; and I believe he continues equally well at the present time. Six weeks after his discharge you all saw him in this room, and you can bear witness that he said his drink and urine were as low as at the period when he left the house.

CASE XCI.—Diabetes mellitus. Paruria mellita. The honeyed Diabetes.

1st October, 1833.

Thomas Blackwell, unmarried, in the 18th year of his age, and works in a cotton-factory, says his disease first commenced eight months ago, with extreme thirst, accompanied by an increased flow of urine. His general health is not much impaired. His appetite good. His bowels are regular, but he has very much debility. He applied for medical relief, and was restricted for some time to animal diet. The quantity of urine was thereby reduced from fourteen pints to eight pints daily, but never below

that. Lately he has relapsed to the higher quantity, and even to fifteen pints.

On admission, the tongue was very red and rough. Papillæ raised. Had a sweet taste in the mouth. Appetite very much increased. A gnawing pain in the stomach, and occasional sinking. Incessant thirst. Urine quite sweet, and in quantity fifteen pints daily. Epigastrium rather tender on pressure. Occasional perspiration. Pulse 90, rather hard. Bowels regular. Slight headache. Much languor and debility. Some pain in the calves of the legs, and sometimes a sense of heat in the throat and stomach. Much flatus.

Bleeding from the arm to twelve ounces.

Five grains of the Compound Powder of Ipecacuan four times a day.

Sulphur bath every morning.

To lie in bed, and have rice diet.

2nd. Pulse 90, hard. Skin moist.

Repeat the bleeding.

3rd. Pulse 100, sharp. Serum of the blood quite opaque and milky.

Twelve leeches to the epigastrium.

The vapour bath every night.

4th. Perspires considerably. Pulse 84, weak. Tongue as before. The saccharine extract contained in a pint of his urine is in quantity 716 grains. His urine contained little or no urea.

6th. Tongue red and very dry. Pulse quick. Skin dry, but cool.

Eighteen leeches to the epigastrium.

To take ten grains of the Compound Powder of Ipecacuan.

7th. Bowels costive.

One fluid ounce and a half of *Mistura Sennæ composita*, as occasion requires.

10th. Pulse 90, full, but soft.

Bleeding from the arm to ten ounces.

11th. Pulse full.

Bleeding from the arm to ten ounces.

12th. Pulse regular, nearly natural. Blood was what is called
"buffed and cupped."

Bleeding from the arm to ten ounces.

14th. There is some cutaneous inflammation on the right side
of the chest.

Omit the sulphur bath, continue the vapour bath.

16th. Breast less inflamed.

Continue the sulphur bath.

17th. Perspired considerably after the bath.

Ten leeches to the epigastrium.

19th. No material change.

To omit the powders.

R Pulveris Ipecacuanhæ compositi gr.x.

Hydrargyri cum Cretâ gr.v.

Fiat pulvis quater quotidie sumendus.

Ten leeches to the epigastrium.

21st. Feels faint and low. Vomited his breakfast. Pulse 90,
hard, but not full.

Cupping-glasses to each kidney, to draw two ounces from
each.

22nd. Pulse 90, sharp.

Repeat the cupping-glasses to the kidneys.

23rd. Pulse 80, hard.

Ten leeches to the epigastrium.

26th. Feels much better.

Six leeches to the epigastrium.

30th. Pulse 90, feeble.

Twelve leeches to the epigastrium.

31st. Better this morning.

Six leeches to the epigastrium.

2nd November. Tongue clean, but red. Pulse full and slow.

Six leeches to the epigastrium.

4th. Pulse more full. Feels better.

Six leeches to the epigastrium.

6th. Much the same.

Ten leeches to the epigastrium.

- 7th. Pulse strong. Bowels costive.
Cupping-glasses to the kidneys to four ounces of blood from each.
Two ounces of the *Mistura Magnesiæ Sulphatis* occasionally.
- 11th. Much the same.
Beef-tea, half a pint daily.
- 14th. Pulse 85, feeble, but regular.
To take five grains of alum in a powder four times a day.
- 15th. Pulse 85, stronger.
To omit the *Compound Powder of Ipecacuan*.
To increase the dose of alum to eight grains four times a day.
- 16th. Much the same.
To increase the dose of alum to ten grains four times a day.
- 20th. Pulse 80.
Cupping-glasses to the kidneys to four ounces of blood from each kidney.
- 21st. Pulse strong.
Six leeches to the epigastrium.
- 22nd. No change.
℞ *Zinci Sulphatis*,
Quininæ Sulphatis,
Ferri Sulphatis, āā gr.j.
Fiat pilula quater quotidie sumenda.
- 29th. Pulse 90, strong.
Ten leeches to the epigastrium.
To omit the pills and powders.
To take ten grains of the *Compound Powder of Ipecacuan* four times a day.
- 2nd December. Much the same. Pulse regular and healthy.
To have animal diet.
- 4th. Says the animal diet does not agree with him. Says the beef lies in his stomach like a lump of lead, and makes him feel sick and uncomfortable.

To omit the animal diet.

To have rice diet.

To have five grains of the mercurial pill every night.

6th. Thirst diminished. Pulse 75, stronger.

To have six leeches to the epigastrium.

7th. Much as usual.

To have six leeches to the loins.

10th. Pulse 80.

Repeat the leeches to the loins.

13th. Pulse 84, strong.

Repeat the leeches to the loins.

18th. Pulse 80, strong.

Ten leeches to the epigastrium.

20th. Pulse 88, strong.

Ten leeches to the epigastrium.

21st. Pulse 100, strong.

Omit the powders.

24th. Pulse 90, wiry and feeble.

Repeat the ten grains of Compound Powder of Ipecacuan
four times a day.

1st January, 1834. Pulse 90, full.

Ten leeches to the epigastrium.

2nd. Pulse 80, full.

Ten leeches to the loins.

8th. Pulse 80, full.

Ten leeches to the epigastrium.

29th. Felt very sick about five o'clock this morning, with a
sense of burning in his stomach. At present feels much better.
Pulse 80, full.

7th February. Felt a dizziness in his head yesterday, which is
now better.

16th. Is much stronger than he was. Bowels regular. Pulse
86, full. Urine tastes sweet. Tongue clean, but very red.
Mouth clammy.

17th. Made an out-patient.

A TABLE shewing the weekly weight, the quantity of drink and of urine taken and voided by the patient in a day, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Oct. 1.	102			—
2.		9	15	1041
3.		10	15	1041
4.		10	14	1040
8.	101	9	10	1040
14.		7	8	1046
15.	101½	5	6	1039
22.	101½	8	10	1040
29.	99	5	7	1037
Nov. 5.	96	6	7	1034
12.	96½	6	7	1035
19.	97	6	7	1030
26.	96	6	7	1028
Dec. 3.	98	6	7	1030
10.	101	5	6	1034
17.	101½	5	6	—
24.	100	5	6	1035
31.	101	5	6	1035
1834.				
Jan. 7.	102	5	6	1034
14.	99½	5	6	1035
21.	101½	5	6	1035
28.	101	5	6	1035
Feb. 11.	103½	5	6	1034

CASE XCII.—Diabetes mellitus. Paruria mellita. The honeyed Diabetes.

8th October, 1833.

Hugh Capstick, a gardener, married, in the 40th year of his age, has perceived the disorder for three months. He has been a

hard drinker, and lately has been much exposed to cold and wet. The complaint came on at first with extreme thirst, and his urine enormously increased in quantity. He says he used to void a bucketfull in the day. Bowels were very loose. His appetite was no ways impaired. He had much languor and lassitude, and latterly, he has been quite incapable of following his employment.

On his admission, he presented the following symptoms. Pulse very small, feeble, and slow, only 60 in a minute. Skin dry and rough; he never perspires. Tongue thickly coated with white fur, and red at the tip. Incessant thirst. Mouth clammy. A nauseous bitter taste. Appetite rather increased than diminished. Feels, particularly in the morning, a gnawing uneasy sensation in his stomach, and as if he could eat any thing placed before him. Much languor and debility; "no heart to do any thing." Bowels very loose. Says every thing goes through him as he takes it. No pain in the back, head, or stomach. Some slight pain occasionally in his knees, and has for some time had a pain and stiffness in his left hand. Is much troubled with wind. No sickness or vomiting. Sleeps pretty well. A pint of his urine contains, of saccharine extract, 665 grains; but apparently it contains no urea.

To lie in bed, and take rice diet.

℞ Hydrargyri cum Cretâ,

Pulveris Ipecacuanhæ compositi, āā gr.v.

Fiat pulvis quater quotidie sumendus.

The hot bath every night.

9th. Bowels were loose yesterday, no motion this morning. Perspired after the bath.

10th. Feels easier. No purging. Pulse still low and feeble.

11th. Pulse 60, feeble.

To have six leeches to the epigastrium.

12th. Much pain at the pit of the stomach. Bowels loose.

To have six leeches to the epigastrium.

13th. Pulse 70, less feeble. Bowels still loose.

To have six leeches to the epigastrium.

- 15th. Mouth sore.
 To omit the powders.
 To have ten grains of the Compound Powder of Ipecacuan
 four times a day.
- 16th. Pulse 80, stronger. Bowels still loose.
 The sulphur bath every morning.
- 17th. Purging diminished. Pulse 90, stronger.
 Ten leeches to the epigastrium.
- 18th. Feces clay-coloured; not loose.
 Two grains of the Pilula Aloës cum Myrrhâ every hour
 during the waking period.
- 21st. Pulse 90, full and strong.
 Cupping-glasses to the kidneys to five ounces of blood
 from each.
- 22nd. Pulse considerably stronger.
 Repeat the cupping-glasses to the kidneys.
- 23rd. Feels rather better.
 Six leeches to the epigastrium.
- 29th. Pulse 80, full and round.
 Ten leeches to the epigastrium.
- 31st. Pulse strong.
 Six leeches to the epigastrium.
- 2nd November. Tongue white.
 Six leeches to the epigastrium.
- 4th. Feels a little better.
 ℞ Tincturæ Guaiaci ammoniatæ fʒj.
 - Misturæ Ammoniæ Acetatis fʒij.
 Fiat haustus quater quotidie sumendus.
- 5th. Perspired more than usual in the night. Bowels not
 purged.
 To omit the pills.
- 7th. Is very feeble.
 Omit the Guaiacum draught.
 ℞ Ammoniæ Subcarbonatis,
 Camphoræ, āā gr.x.
 Fiat bolus s. a. quater quotidie sumendus.

9th. Is much better than when he first came in, and thinks himself well enough to go home.

11th. Discharged at his own request.

A TABLE of the weekly weight of the patient, of the quantity of drink and of urine taken and voided by him in a day, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Oct. 8.	105	.....	.....	1035
9. ....	.....	10	8	1029
10. ....	.....	11	14	1029
11. ....	.....	13	19	1035
12. ....	.....	11	12	1031
15.	103	10	11	1029
22.	104	9	11	1035
29.	108	6	5	1031
Nov. 5.	104	7	6	1029
6. ....	.....	7	6	1030
7. ....	.....	7	6	1030
8. ....	.....	7	6	1030
9. ....	.....	7	6	1029

OBSERVATIONS.

This patient was a really drunken fellow. We had known him for years, and had had him in the house before for a complaint connected with his habit of drinking to excess. I think that we should have cured him of his diabetes, if he would have been content to stay in the house. I judge so partly from the circumstance of his disease being but recent, partly from the comparatively small quantity of urine which he voided, partly from the circumstance that

the quantity of his drink exceeded the quantity of his urine, partly from the comparatively low specific gravity of his urine, and finally from the comparatively small affection of the mucous membrane of the alimentary canal, as shewn by the appearance of his tongue, which was by no means red, but rather white. However, he had got it into his head, that his weakness did not arise from his complaint, but from his being debarred of beef-steaks and porter, and so he went out to enjoy himself with animal food and strong drink, and, I conjecture, to grow gradually worse.

CASE XCIII.—Diabetes mellitus. Paruria mellita. Honeyed Diabetes.

10th October, 1833.

Henrietta Wilson, in the 40th year of her age, a soldier's wife, says she has been ill nine months. The disease came on with intense thirst, the urine greatly increased in quantity, frequent vomiting, much languor and debility, purging, appetite remarkably keen. The languor and debility have increased so that she has been lately quite unfit to do any thing. Says her habits have always been regular and temperate, and she knows of no cause to which she can attribute her complaint, except the injury her bowels sustained from her having taken violent purgative medicines, to which she had accustomed herself every spring and fall of the year.

On her admission, she had the tongue thickly coated, particularly at the root and in the centre, with a brownish fur; it was at the tip and edges very red. She has a very nauseous taste in her mouth. Her saliva tastes sweet. The skin is dry and rough,

never moist. Appetite is at present less keen than before. She feels very sick and faint, and a sinking in her stomach as if she were going to die. She does not vomit now. She has an intolerable thirst, and makes an excessive quantity of urine, which, she says, has a sweet taste. She has a troublesome cough at night, and expectorates a quantity of very nauseous matter. Some pain on the left side of her chest on respiration and on coughing. Considerable pain on pressure over the epigastrium and right hypochondrium. Says she cannot lie comfortably on the left side. Sleep is much disturbed by terrifying dreams, as of danger of falling from some precipice, or of being drowned. Bowels at present are costive, but they always have been loose on her taking opening physic: says she feels best when her bowels are confined. Complains of much feebleness and languor, occasional pain in her limbs, as the calves of her legs, knees, arms, &c. Pulse 112, very small and feeble. One pint of her urine contains, of saccharine extract, 370 grains. It apparently contains no urea.

To lie in bed, and have rice diet.

℞ Hydrargyri cum Cretâ,

Pulveris Ipecacuanha compositi, āā gr.v.

Fiat pulvis quater quotidie sumendus.

The sulphur bath every morning.

11th. Feels pretty easy.

Six leeches to the epigastrium.

12th. Has much pain round the hypochondriac region.

Six leeches to the epigastrium.

The vapour bath every night.

13th. Has had a comfortable motion this morning. Pulse 100, feeble. Has some pain in the bowels. Coughs as before.

Six leeches to the epigastrium.

7 P. M. *Vesperè*. Is very ill. Pulse indistinct. Breathing short.

To have three ounces of French brandy to-night.

14th. Bowels excessively loose. Some pain in the abdomen.

To omit the powders and the baths.

To have one pint of beef-tea daily.

To have four ounces of French brandy to-day.

℞ Ammoniæ Subcarbonatis,

Camphoræ, āā gr.v.

Fiat bolus tertiâ quâque horâ sumendus.

To have one ounce of the Mistura Aetheris cum Opio every hour.

4 P. M. Purging continues.

℞ To have one grain of opium made into a pill with aromatic confection every six hours.

8 P. M. *Vesperè*. Continues very ill.

To have four ounces of French brandy this evening.

15th. Feels considerably better this morning. Pain in the abdomen relieved. The purging has abated. Vomited frequently yesterday, and in consequence is obliged to take fluids in very small quantities. Has not any appetite, but has considerable thirst. Tongue continues dry, and much furred. Has not vomited this morning, nor has she had a stool. Slept more comfortably. Skin is agreeably warm, but dry. Pulse 130, very feeble and fluttering. Abdomen not tender to pressure. No cough. Breathes freely, and without pain.

8 P. M. *Vesperè*. Pulse still feeble.

To increase the brandy to eight ounces a day.

16th. Feels some little better. Passed a comfortable night. Tongue exceedingly dry, and thickly coated with a brown fur, like dry clay. No purging or vomiting. Pulse 100, weak and wiry, less feeble than before. Skin dry and hot. No pain.

17th. Skin cold. Pulse 120, rather stronger. Tongue still dry, but less coated. Mouth and throat very dry. Thirst increased. Bowels not open since the 15th. No pain. No vomiting. Still troubled with a cough, but it is less urgent.

A mustard poultice to the epigastrium.

Omit the pills of opium, and the Mistura Aetheris cum Opio.

Continue the brandy.

Continue the beef-tea.

Continue the bolus.

To have one pint of porter daily.

7 P. M. *Vesperè*.

Repeat the *Mistura Aetheris cum Opio*.

18th. Breathing quick and laborious. Much moaning. Lips pallid. Countenance cadaverous. Extremities cold. Pulse indistinct. Feces and urine pass involuntarily.

5 P. M. *Vesperè*. Died.

Autopsy, twenty-two hours after death. The mucous coat of the stomach was inflamed at various points. The mucous coat of the duodenum, jejunum, ileum, and colon was also strongly marked by inflammation, as well as discoloured in many parts. There were no appearances of ulceration, except something like incipient ulcers in the duodenum.

The right kidney was considerably enlarged, or, as it may be termed, *hypertrophised*. The left kidney was nearly without substance, and presented an appearance of complete *atrophy*. The ureters of both sides were preternaturally enlarged.

The uterus was tuberculated. The liver presented an unhealthy mottled appearance.

On cutting into the chest, there were strong marks of pleuritis on the left side, such as adhesions of the pleura, with lymph and pus observed on the surface of the lung. The upper lobe of the left lung contained a very large vomica; the posterior portion was hepatised. No apparent disease in the right cavity.

A TABLE of the weight of the patient, with the daily quantity of fluid she drank, and of urine which she voided, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Oct. 10.	99	.....	.....	1019
11.	11	12	1027
12.	11	13	1021
13.	10	11	1019
14.	5	6	1027

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Oct. 15.	4	3	1025
16.	5	4	1020
17.	9	9	1019

OBSERVATIONS.

You recollect, gentlemen, before we opened the body of this patient, and it was opened on a lecture-day, after the lecture, that I prognosticated to you in this room, that, independently of the disease of the lungs, we should find gastro-enteritis, and hypertrophy of one or of both kidneys. The result completely confirmed my prognostication.

Now, how was this patient to be cured? I speak without reference to her disease of the lungs. Could animal diet have any, the least, tendency towards effecting a cure? Could opium effect a cure? Could magnesia do any thing? Could alum? Could phosphate of soda? I venture to say No!

Could bleeding effect a cure? Not in the stage of the disease at which the patient had arrived when she came into the house. But in the early stage of the disease, almost before it has attracted the notice of the patient, bleeding seems the most rational plan.

Probably patients have in all cases been ill much longer than they say, or have any idea of: as most likely the disease comes on very insidiously, and does not attract much notice until the thirst and

the quantity of urine voided have become very excessive.

In almost every case of diabetes, whether insipid or honeyed, you find the tongue betraying by its redness, by the elevation of the papillæ, and by its chopped appearance, the irritation or inflammation of the mucous membrane of the alimentary canal. In like manner, you find the bowels almost always loose; and even while the patient is taking opium, or the compound powder of ipecacuan, or using the warm bath, or taking rice-diet, or lying constantly in bed, the bowels are generally sufficiently open. And does not this satisfactorily indicate the irritation of the mucous membrane of the alimentary canal, and is not animal diet likely to increase this irritation?

With respect to the lungs, truth obliges me to admit that they were diseased in this case; but it was a purely accidental circumstance. The lungs are not particularly liable to be affected in diabetes, and the cough which the patients frequently have, arises from irritation of the stomach, in the manner I explained when treating of gastro-enteritis.

CASE XCIV.—Diabetes mellitus. Paruria mellita. Honeyed Diabetes.

4th November, 1833.

Hannah Lees, married, a housewife, in the 39th year of her age, says the first symptoms of the disease showed themselves

eight or nine months ago, when she became excessively thirsty, and made an increased quantity of urine. She attributes the accession of her disorder to her having been induced to take strong liquors when tending a sister ill of a fever.

On admission, the tongue was dry and rough, with a red glazed appearance. Has a sweet taste in her mouth. Has excessive thirst. Has a very greedy appetite. Feels great languor and debility. Has occasional pain in her head and back; and almost constant pain and tenderness over the epigastrium and abdomen. Has a dull pain in the loins. She has occasional pain in the calves of her legs. Is much troubled with wind. Bowels are at present costive, but have been very loose. Pulse 115, small and feeble. One pint of her urine contains, of saccharine extract, about 780 grains. It apparently contains no urea.

A TABLE of the weekly weight of the patient, the quantity of fluid and of urine drunk and voided in a day, with the corrected specific gravity of the urine.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Nov. 5.	92½. . . . .	. . . . .	. . . . .	1041
7. . . . .	. . . . .	12	15	1039
9. . . . .	. . . . .	14	14	1039
12.	93	12	10	1035
19.	93	4	4	1045
26.	89	6	6	1035
Dec. 3.	91	12	12	1032
10.	88	7	8	1038
17.	88	8	8	1034
22. . . . .	. . . . .	11	11	1043

OBSERVATIONS.

This woman was treated on much the same plan as the foregoing patients, with leeches to the epigastrium, the sulphur bath and vapour bath, the com-

pound powder of ipecacuan, rice-diet, and lying in bed. On account of a diarrhea which supervened, she had opium and catechu, and on account of her great debility she had brandy and beef-tea, and at one time entirely animal diet. She had mercurial pill, and, for a short period, alum and bark. She remained in the house until the 22nd December, when, being improved, I suppose she wished to go home to Oldham to pass her Christmas, and she was discharged, at her own request, relieved.

CASE XCV.—Diabetes mellitus. Paruria mellita. Honeyed Diabetes.

19th November, 1833.

Mary Kay, a widow, in the 36th year of her age, works in a cotton factory. She says she has been afflicted with her disease nearly fifteen months. Previously to its accession her spirits had been much depressed. She had worked in a damp and dirty place; was greatly overheated and had cold chills. She was suddenly seized with extreme thirst, and her urine became changed in quantity and appearance. It tasted sweet, and smelt very fragrant, like mignonette. Her bowels were regular. Her appetite was much depraved. She felt a gnawing at her stomach and a constant inclination to be eating. She had pain in her stomach and sickness after taking food; used occasionally to vomit. She had a sweet taste in her mouth. She had some pain in her limbs, such as the thighs and legs; weakness and pain in the loins; much languor and debility. No rest at nights. Much wind in her bowels. Catamenia were previously regular, but have never recurred since this attack. Has had advice and been treated for the complaint on two former occasions; when she had prescribed for her animal diet, which did not produce any lasting benefit.

When admitted, the tongue was red, glazed, moist at the sides, dry and streaked with white in the middle. Taste rather nauseous, but not sweet. Mouth very clammy. She has extreme and almost incessant thirst. Bowels regular. Much flatulence. Appetite greedy. A gnawing at the stomach when not eating. A sensation of burning down the throat into the stomach. Pain on pressure over the epigastrium. Some sickness, but no vomiting after eating. Pain in her legs and knees. No pain but much weakness in her loins. Feels extremely languid and feeble. Pulse 100, small and weak. No cough. Frequent sweating, but not general; mostly confined to her head and breast. Very little sleep, and is much annoyed by dreams when dosing. Urine copious, and of the character described. One pint of it contained, of saccharine extract, about 700 grains. It apparently contains no urea.

A TABLE of the weight of the patient, of the quantity of fluid she drank, and of the quantity of urine she voided, in a day, at certain times, with the corrected specific gravity of the urine.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Nov. 20.	92	16	25	1037
26.	87	9	16	1035
Dec. 3.	89	14	16	1035
10.	87	12	13	1033
17.	89½	12	12	1034
24.	87	11	10	1035
31.	86½	11	10	1038
1834.				
Jan. 7.	92	11	11	1038
14.	91	11	11	1040
21.	90½	11	11	1035
28.	89½	11	11	1037
Feb. 4.	89½	11	11	1035
11.	89	10	10	1041

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Feb. 18.	90	10	10	1039
20.		10	10	1035
23.		10	10	1035

OBSERVATIONS.

This patient was treated on the same principles as the former patients, with leeches to the epigastrium, cupping-glasses to the loins, the sulphur and vapour baths daily, compound powder of ipecacuan in large quantities, the hydrargyrum cum cretâ, rice-diet, and lying in bed. We succeeded in reducing the quantity of her water, and that was all we could expect to do; as I have no doubt some organic change had taken place, either in her stomach, or in one or both kidneys, which rendered her case incurable. She was discharged relieved on the 24th of February.

CASE XCVI.—Diabetes mellitus. Paruria mellita. Honeyed Diabetes.

25th November, 1833.

Ann O'Neale, married, works in a cotton factory, and is in the 27th year of her age, says she has been affected thirteen or fourteen weeks. She attributes the accession of her disease to frequent exposure to wet and cold, and very hard work when she had but lately recovered from her confinement. The first symptoms were extreme thirst, and an almost incessant desire to drink and to void her urine, which amounted to fifteen or sixteen pints in the twenty-four hours. She had much depression of spirits,

and became greatly enfeebled. Her eyesight failed her. She had a gnawing and sickness at her stomach, occasional vomiting. Greedy appetite. Much flatus in her bowels. No cough. No pain. Felt a weakness and languor after any kind of exertion. Says she noticed that her urine always left a stain on her clothes. It smelt very fragrant, and tasted sweet. These symptoms became daily more urgent, and she has been latterly incapable of following her occupation. Was advised to drink brandy as a remedy, which made her worse. She used frequently to drink beer and ale, previously to this disorder.

On admission, the tongue was whitish in the middle, red and rugged, as if chapped, at the sides. At present it is moist, but she says it is mostly dry. She has a sweet nauseous taste in her mouth, and a very inordinate thirst. Appetite is capricious, not very good. She has some tenderness on pressure over the epigastrium. Occasional sickness and vomiting. Bowels costive. No pain at her back. Frequent pain in the calves of her legs. General debility in all her limbs. Much flatus in her bowels. Pulse 70, very small and feeble. Occasional cough and spitting. Skin dry and rough. Pain in her breast extended to her shoulder on inspiration, or when coughing. Never sweats. Sleeps pretty well; but is sometimes much disturbed by terrifying dreams. No catamenia since this affection commenced. Sight is dim. She tasted her urine this morning and found it sweet; she says it smells something like new-mown hay. A pint of it contains, of saccharine extract, 624 grains. It contains apparently no urea.

A TABLE of the weight of the patient, of the quantity of fluid she drank, and of urine she voided in a day, at certain times, with the corrected specific gravity of the urine.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Nov.26.	105	14	17	1035
Dec. 3.	100	11	11	1031
10.	91	7	8	1029

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Dec. 17.	92½.....	8	6	1029
24.	90½.....	6	5	1032
31.	97½.....	9	8	1032
1834.				
Jan. 7.	94½.....	8	8	1030
14.	91	9	9	1032

OBSERVATIONS.

This patient was treated on the same principles as the former patients, with venesection, leeches, and cupping-glasses; with the sulphur and vapour baths; with the compound powder of ipecacuan in large doses, along with the hydrargyrum cum cretâ; with rice-diet, and lying in bed. She seemed to be going on very well under this plan until the 16th December, when her drink was reduced to six pints, and her urine to six pints in the day, the specific gravity to 1029. At this period, the sickness and vomiting which had troubled her occasionally from the beginning, increased so much, that we were induced to omit the powders and the baths, to give her four ounces of brandy in the day, an effervescing draught several times in the day, and a quantity of beef-tea. She had the baths renewed after this, and had a few leeches to the epigastrium, and small doses of the compound ipecacuan-powder; but she never left off the brandy and beef-tea. Towards the middle of January, she was seized with great pain at the stomach, with continued sickness and

vomiting, which carried her off on the 17th. We were not allowed by her husband to inspect the body.

CASE XCVII.—Diabetes mellitus. Paruria mellita. Honeyed Diabetes.

9th December, 1833.

Henry Bentley, a schoolboy, aged six years and three months, has been afflicted three months. His father says the complaint first came on with an increase in the quantity of urine, which was quite clear and like water, smelt fragrant and stained his clothes. About a week after this symptom had shewn itself he became extremely thirsty, with an almost incessant desire to drink. His usual demeanour very much changed, from great sprightliness to dulness and languor. He took very little notice of any thing around him. He slept a good deal in the day-time. Became much emaciated. Vomited frequently. Bowels were unusually costive. These symptoms increased upon him, and, within the last month, have been very urgent. His appetite has latterly been very voracious.

On admission, the countenance was very dull and anxious. He exhibited remarkable emaciation. Tongue at present moist; red at the sides and tip, furred in the middle. Appetite voracious; occasional vomiting. Skin cold, dry, and rough: no sweating. Pulse 100, small. Pupils dilated. Extreme thirst. Urine inordinately copious. The lad weighs only $35\frac{1}{2}$ pounds, and he passes daily above 27 pounds of urine. He has occasional pain in his stomach and bowels after eating. Bowels have been loose these few days. Legs and feet are edematous. He has a slight dry cough. Wakes frequently in the night. One pint of his urine was found to contain, of saccharine extract, 624 grains. It apparently contained no urea.

A TABLE of the weekly weight of the patient, with the daily quantity of fluid he drunk, and of urine which he voided, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Dec. 10.	35½	.....	.....	—
11. ....	.....	24	27	1029
12. ....	.....	22	24	1034
13. ....	.....	14	16	1029
14. ....	.....	12	13	1032
15. ....	.....	9	9	1034
16. ....	.....	9	8	1035
17.	33½	8	7	1036
18. ....	.....	6	6	1031
19. ....	.....	6	6	1034
20. ....	.....	9	10	1023
21. ....	.....	12	12	1039
24.	36	16	16	1034
31.	35½	11	10	1038
1834.				
Jan. 7.	33	10	10	1020
14.	37	12	12	—
21.	36½	14	14	1034
28.	37½	10	10	1040
Feb. 4.	38½	11	11	1037
11.	39½	15	15	1029
18.	38½	12	12	1029
25.	37½	12	12	1030
Mar. 11.	37½	14	14	1035
18.	39	18	18	1028
25.	38½	17	17	1030

OBSERVATIONS.

This is a most curious case of diabetes mellitus. I have never before seen, or heard, or read, that

diabetes mellitus is liable to seize so young a subject. And it is no less extraordinary, that whilst the boy weighed only $35\frac{1}{2}$ pounds, he should at one time have daily passed as much as 16,848 grains of solid saccharine extract, consisting principally of sugar; that is to say, more than two pounds avoirdupois, and nearly three pounds troy weight. He was treated with the sulphur bath and vapour bath, calomel and James's powder, rice-diet, and lying in bed; but he was so delicate a little fellow, that I could not venture to bleed him even with leeches, and to this circumstance, perhaps, our want of success may be attributed. It may be mentioned that the boy's appearance and manners were by no means either youthful or sprightly. He seemed to have the expression of countenance, and the sedateness of an old man.

CASE XCVIII.—Diabetes insipidus. The insipid Diabetes.

16th December, 1833.

John Ogden, unmarried, aged 60, a weaver, says, previously to the last six months, his health had been very good, but his circumstances being reduced, his spirits became depressed, and his diet was very poor; added to which he thinks he injured his health, by working in a damp room. The first indication of disease was the occurrence of fits, probably epileptic, which came on suddenly, without any previous warning, as frequently as two or three times a week, leaving his head very mazy, and much confused. He then perceived an increase in the quantity of his urine, inordinate thirst, and much debility.

On admission, tongue furred in the middle, and red at the sides.

Bitter taste in his mouth. Appetite capricious, sometimes inordinate. Bowels costive. Extreme thirst. No pain. Skin dry. Pulse 74, small and feeble. Spirits depressed and recollection bad. Much languor and debility. Much incontinence of urine. Restless nights. No cough or sweating. One pint of his urine contains, of solid extract, not more than 60 grains. On treating it in the usual way abundance of urea was deposited.

A TABLE of the weight of the patient, and of the quantity of fluid he drunk, and of the quantity of urine he voided in a day, with its corrected specific gravity.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Dec. 17.	121½			1009
18.		8	8	1010
24.	125	8	9	1009
31.		7	7	1008
1834.				
Jan. 1.		7	7	1009

OBSERVATIONS.

Here we see insipid diabetes combined with epilepsy. This was probably an accidental combination. However this be, the man was treated in the usual manner with baths and leeches. He was going on very well, when on the 2nd January he had a paralytic seizure of the left side, which carried him off on the 4th of January.

CASE XCIX.—Diabetes mellitus. Paruria mellita. Honeyed Diabetes.

3rd March, 1834.

Joseph Taylor, widower, a weaver, in the 40th year of his age, has been afflicted two years. Attributes his disease to working in a damp cellar. Was never a hard drinker; generally drank malt

liquors. He is not aware that any of his ancestors were subject to the same complaint. His first symptoms were an increased flow of urine, and great thirst, with occasional pain in his stomach and loins. The greatest quantity of urine he has passed in twenty-four hours was about twenty-two pints.

On admission, he has urgent thirst, an aching pain in the loins, a burning pain in his stomach, greater when hungry. Appetite is voracious. Occasional head-ache. Difficulty of respiration and inordinate palpitation of the heart, increased on exertion. Feet and legs always cold, sometimes troubled with cramp. Sight good. Bowels generally costive, sometimes for a week together. Skin dry and hot; he does not perspire. Pulse 80, full and hard. Is troubled with hemorrhoids. Mouth dry and parched. Tongue white and dry. One pint of his urine contains, of saccharine extract, 670 grains; it apparently contains no urea.

A TABLE of the weekly weight of the patient, of the quantity of fluid he took, and of urine he voided in a day, with the correct specific gravity of the urine.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Mar. 5.	127	14	14	1035
11.	138	10	12	1043
18.	130	12	16	1040
25.	125	12	16	1039
Apr. 1.	121	8	12	1040
8.	120	10	12	1038
15.	118	10	14	1040
22.	120	10	12	1040
29.	121	8	10	1040
May 6.	123	8	10	1037
8. . . . .	. . . . .	8	8	1037

OBSERVATIONS.

This man was treated in the usual plan, by the sulphur bath, the hot bath, the compound powder of

ipecacuan, leeches to the epigastrium; and the mercurial pill, and pilula aloës cum myrrhâ for his hemorrhoids. We brought his drink down to eight pints, and his urine to ten pints daily. At this period, the 25th of April, we commenced to give him one grain of opium four times a day, and we have, at the present period, the 8th of May, increased his opium to fifteen grains a day; but without the slightest increase in the diminution of his drink. The urine is brought down to eight pints. I have not ventured on the formidable dose of forty grains a day, as some practitioners have given; nor do I know that I shall venture on it. I do not see any rational prospect of its doing any permanent good; but I know that by its suppressing all the secretions, it may kill the patient. The man is at present very stout, considering circumstances.

CASE C.—Diabetes insipidus. The insipid Diabetes.

10th March, 1834.

Richard Rice, a boy of 17, who works in a cotton-factory, was admitted into the house for about three weeks a short time ago, during which period his water was reduced, and, being much improved both in health and strength, he was discharged at his own request, relieved. He says he perceived an increased flow of his urine about two years ago. He thinks it came on from a violent cold he caught by exposure to the weather. First felt violent pain in his head; great debility and drowsiness; violent pains in his loins; with an increased flow of urine. The greatest quantity he voided in twenty-four hours was about fourteen pints.

On his being admitted before, he had a burning pain at his

stomach, much increased by eating. He vomited incessantly. Urine smelt very nauseous, and tasted insipid.

On admission this time, he has great thirst. Appetite is good. Tongue is slightly furred in the middle, dry and red at the edges. Bowels regular. Skin dry; does not perspire. Pulse 108, feeble. Has a pain in his loins, increased when he drinks anything cold. No pain or uneasiness in his stomach. Mouth clammy, particularly in a morning. No dimness of sight, or pain in the head.

A TABLE of the weight of the patient, of the quantity of fluid drunk, and of the quantity of urine voided by him in a day, with the corrected specific gravity of it.

	Weight, in pounds.	Drink, in pints.	Urine, in pints.	Specific gravity.
Mar. 11.	104 . . . . .	. . . . .	. . . . .	—
12. . . . .	. . . . .	8	9	1008
18.	103½	5	5	1005
25.	104½	5	5	1006
27. . . . .	. . . . .	5	5	1005
31. . . . .	. . . . .	5	5	1005

OBSERVATIONS.

This is a case of successful treatment of the insipid diabetes. The patient had the sulphur bath and the vapour bath, the compound powder of ipecacuan, leeches to the stomach, and castor-oil when required. When he was finally discharged, his urine contained a plentiful quantity of urea.

APPENDIX,

CONTAINING SUCH FORMS OF MEDICINE AS ARE GIVEN IN THIS BOOK,
AND ARE NOT TO BE FOUND IN THE LONDON PHARMACOPEIA.

BOLUS CAMPHORÆ CUM AMMONIA.

℞ Camphoræ, ope Spiritûs rectificati, contritæ,
Ammoniæ Subcarbonatis, āā gr. v,
Confectionis aromaticæ quod satis sit ;
Miscæ.

CONFECTIO FERRI TARTARIZATI.

℞ Potassæ Supertartratis contritæ ℥iij,
Ferri tartarizati contriti ℥viij,
Zingiberis Radicis contritæ ℥ij,
Theriacæ quantum satis sit ;
Miscæ.

CONFECTIO OPII.

℞ Opii duri contriti ℥vj,
Pulveris aromatici ℥vj,
Tragacanthæ contritæ ℥ij,
Theriacæ Oj ;

Opium cum Theriacâ calefactâ tere ; tum cætera contrita adjice,
et miscæ.

ENEMA DOMESTICUM.

℞ Sodæ Muriatis ℥j,
 Decocti Avenæ tepidi f℥xv,
 Olei Lini f℥j;
 Misce.

GARGARISMA HYDRARGYRI OXYMURIATIS.

℞ Liquoris Hydrargyri Oxymuriatis f℥v,
 Theriacæ f℥j,
 Aquæ f℥x;
 Misce.

HAUSTUS OLEI RICINI.

℞ Olei Ricini f℥ss,
 Aqua Menthæ viridis f℥j,
 Liquoris Potassæ m vj;
 Misce.

HAUSTUS POTASSÆ CITRATIS.

℞ Liquoris Potassæ Carbonatis f℥j,
 Liquoris Acidi citrici f℥ss;
 Misce, ut fiat Haustus dum bullulas edit sumendus.

HAUSTUS POTASSÆ TARTRATIS.

℞ Liquoris Potassæ Carbonatis f℥j,
 Liquoris Acidi tartarici f℥ss;
 Misce, ut fiat Haustus dum bullulas edit sumendus.

INFUSUM CALUMBÆ CUM POTASSA.

℞ Infusi Calumbæ Oj,
 Potassæ Carbonatis ℥ij;
 Misce.

INFUSUM LINI COMPOSITUM.

℞ Lini Seminum contusorum ℥j,
 Glycyrrhizæ Radicis concisæ ℥ss,
 Aquæ ferventis Oij;

Macera per horas quatuor, prope ignem, vase leviter clauso, et cola.

INFUSUM SERPENTARIÆ COMPOSITUM.

R Serpentariæ Radicis contusæ,
 Contrajervæ Radicis contusæ, āā ℥iv,
 Aquæ ferventis Oj;

Macera per horam in vase leviter clauso, et cola; tum adjice
 Tincturæ Serpentariæ f℥ij.

LINCTUS PAPAVERIS.

R Mucilaginis Acaciæ f℥x,
 Syrupi Opii f℥ij;
 Miscæ.

LINCTUS PAPAVERIS CUM SENNA.

R Confectionis Sennæ ℥jss,
 Linctûs Papaveris f℥jss,
 Oxymellis Scillæ f℥iij;
 Miscæ.

LINCTUS SCILLÆ.

R Linctûs Papaveris f℥iijss,
 Oxymellis Scillæ f℥ss;
 Miscæ.

LIQUOR ACIDI CITRICI.

R Acidi citrici ℥x,
 Aquæ Oj;
 Liqua.

LIQUOR ACIDI TARTARICI.

R Acidi tartarici ℥xj,
 Aquæ Oj;
 Liqua.

LIQUOR MORPHINÆ ACETATIS.

R Morphinæ Acetatis gr. xvj,
 Acidi acetici diluti f℥ij,
 Aquæ destillatæ f℥v,
 Spiritûs rectificati f℥j;

Morphinæ Acetatem cum Acido tere; Aquam et Spiritum
 adjice; dein per chartam cola.

LIQUOR POTASSÆ CARBONATIS.

- ℞ Potassæ Carbonatis ℥vijss,
 Aquæ destillatæ Oj;
 Liqua, et per chartam cola.

MISTURA ACACIÆ COMPOSITA.

- ℞ Mucilaginis Acaciæ f℥vijj,
 Misturæ Ammoniaci f℥ij,
 Aquæ Menthæ viridis f℥iv,
 Theriacæ f℥ss;
 Misce.

MISTURA ACACIÆ CUM SCILLA.

- ℞ Misturæ Acaciæ compositæ f℥xv,
 Tincturæ Scillæ f℥jss,
 Tincturæ Camphoræ compositæ f℥ss;
 Misce.

MISTURA ACIDI SULPHURICI.

- ℞ Aquæ Menthæ viridis,
 Aquæ, āā Oj,
 Acidi sulphurici diluti f℥ijj;
 Misce.

MISTURA ÆTHERIS CUM OPIO.

- ℞ Aquæ Menthæ viridis f℥vijss,
 Ætheris rectificati,
 Spiritûs Lavandulæ compositi āā f℥ij,
 Tincturæ Opii m xx;
 Misce.

MISTURA AMMONIÆ ACETATIS.

- ℞ Aquæ Menthæ viridis f℥v,
 Liquoris Ammoniae Acetatis f℥ijj;
 Misce.

MISTURA ANTIMONIALIS.

- R Aquæ Menthæ viridis f̄x̄ivss,
 Vini Antimonii tartarizati f̄j̄,
 Tincturæ Opii m xxx,
 Spiritûs Lavandulæ compositi f̄j̄ij ;
 Misce.

MISTURA CATECHU COMPOSITA.

- R Aquæ Menthæ viridis f̄j̄vij,
 Tincturæ Catechu f̄j̄,
 Spiritûs Lavandulæ compositi f̄j̄,
 Tincturæ Opii m xxx ;
 Misce.

MISTURA CINCHONÆ.

- R Decocti Cinchonæ f̄x̄ivss,
 Tincturæ Cinchonæ f̄j̄jss,
 Cinchonæ Corticis contriti j̄ij ;
 Misce.

MISTURA GUAIIACI AMMONIATA.

- R Misturæ Guaiaci f̄x̄jss,
 Liquoris Ammonię Subcarbonatis f̄j̄ss ;
 Misce.

MISTURA MAGNESIÆ SULPHATIS.

- R Magnesiæ Sulphatis j̄j,
 Misturæ Acidi sulphurici f̄j̄vij ;
 Misce.

MISTURA QUININÆ SULPHATIS.

- R Quininæ Sulphatis gr. xij,
 Acidi sulphurici diluti m xxx,
 Aquæ f̄x̄ij ;
 Misce.

MISTURA SALINO CUM FERRO.

- R Magnesiæ Sulphatis,
 Sodæ Sulphatis āā j̄ijss,

Ferri Sulphatis, gr. j,
 Aquæ tepidæ Oj ;
 Liqua.

MISTURA SENNÆ COMPOSITA.

℞ Magnesiæ Sulphatis ℥vj,
 Infusi Sennæ compositi Oiv,
 Tincturæ Sennæ f ℥iv ;
 Miscæ.

OXYMEL SCILLÆ.

℞ Theriacæ (*vice Mellis*) lbijj,
 Aceti Scillæ Oij ;

Decoque in vase vitreo, lento igne, ad idoneam crassitudinem.

PILULÆ ALOËS CUM FERRO.

℞ Aloës Extracti contriti,
 Myrrhæ contritæ, āā ℥jss,
 Extracti Gentianæ,
 Ferri Sulphatis contritæ, āā ℥j,
 Theriacæ quantum sufficiat ;

Simul contunde donec corpus unum sit ; dein in Pilulas LX divide.

PILULÆ ALOËS CUM SAPONE.

℞ Aloës Extracti contriti ℥iij,
 Saponis duri ℥j,
 Olei Menthæ piperitæ m x,
 Theriacæ quantum satis sit ;
 Miscæ, et divide in Pilulas LX.

PILULÆ ANTIMONII COMPOSITÆ.

℞ Antimonii tartarizati gr. xv,
 Opii duri contriti ℥j,
 Hydrargyri Submuriatis ℥ij ;
 Theriacæ quantum satis sit ;
 Miscæ, et divide in Pilulas LX.

PILULÆ COLOCYNTHIDIS CUM HYDRARGYRO.

- ℞ Extracti Colocynthidis compositi ℥iv,
 Hydrargyri Submuriatis ℥j,
 Theriacæ quantum satis sit ;
 Contunde, et divide in Pilulas LX.

PILULÆ DIGITALIS CUM OPIO.

- ℞ Digitalis Foliorum contritorum ℥j,
 Opii duri contriti ℥ss,
 Saponis duri ℥ij,
 Theriacæ quantum satis sit ;

Simul contunde donec corpus unum sit ; dein finge in Pilulas
 CXX.

PILULÆ DIGITALIS CUM ZINCO.

- ℞ Digitalis Foliorum contritorum,
 Opii duri contriti, āā ℥j,
 Zinci Acetatis ℥ij
 Myrrhæ contritæ ℥iij,
 Theriacæ quantum satis sit ;
 Contunde, et divide in Pilulas LXXX.

PILULÆ HYDRARGYRI OXYMURIATIS.

- ℞ Hydrargyri Oxymuriatis,
 Ammonia Muriatis, āā gr. v,
 Theriacæ ℥x,
 Panis Medullæ ℥jss ;

Contere sales et Theriacam ; Panis Medullam adjice ; dein contunde, et divide in Pilulas XL.

PIPULÆ QUININÆ SULPHATIS.

- ℞ Quininæ Sulphatis gr. xij,
 Glycyrrhizæ Radicis contritæ gr. x,
 Theriacæ quantum satis sit ;

Simul contunde donec corpus unum sit ; dein finge in Pilulas
 XII æquales.

PILULÆ SCILLÆ COMPOSITÆ CUM HYDRARGYRO.

℞ Hydrargyri Submuriatis gr. xv,
 Pilularum Scillæ compositarum ℥v̄;
 Misce, et divide in Pilulas LX.

PILULÆ ZINCI SULPHATIS.

℞ Zinci Sulphatis ℥j,
 Extracti Gentianæ ℥iv,
 Calumbæ contritæ quantum satis sit;
 Contunde, et divide in Pilulas LX.

PULVIS HYDRARGYRI SUBMURIATIS CUM JALAPA.

℞ Hydrargyri Submuriatis ℥j,
 Jalapæ Radicis contritæ ℥iij;
 Misce.

PULVIS HYDRARGYRI SUBMURIATIS CUM RHEO.

℞ Hydrargyri Submuriatis ℥j,
 Rhei Radicis contritæ ℥iij;
 Misce.

PULVIS HYDRARGYRI SUBMURIATIS CUM SACCHARO.

℞ Hydrargyri Submuriatis ℥j,
 Sacchari purificati contriti ℥iv;
 Misce.

PULVIS RHEI CUM MAGNESIA.

℞ Magnesiae ℥j,
 Rhei Radicis contritæ ℥ij,
 Zingiberis Radicis contritæ ℥ss;
 Misce.

PULVIS RHEI SALINUS.

℞ Rhei Radicis contritæ ℥j,
 Potassæ Sulphatis contritæ ℥iij;
 Misce.

SYRUPUS OPII.

℞ Opii duri contriti ℥ij,
 Aquæ ferventis f̄℥vj;
 Theriacæ Oj;

Macera Opium in Aquâ prope ignem, in vase leviter clauso, per triduum; tum cola, et adde Theriacam; dein leni calore consume ad fluiduncias viginti.

TINCTURA AROMATICA.

℞ Cassiæ Corticis contusi ℥vj,
 Carui Seminum contusorum,
 Zingiberis Radicis concisæ,
 Pimentæ Baccarum contusarum, āā ℥iv,
 Piperis longi Fructûs contriti ℥ij,
 Pterocarpi Ligni concisi ℥vj,
 Spiritûs tenuioris Oij;
 Macera par dies quatuordecim, et cola.

TINCTURA IODINÆ.

℞ Iodinæ ℥ij,
 Spiritûs rectificati f̄℥j;
 Liqua.

UNGUENTUM POTASSÆ HYDRIODATIS.

℞ Potassæ Hydriodatis contritæ gr. xxx,
 Adipis præparatæ ℥j;
 Misce.

VINUM COLCHICI.

℞ Colchici Seminum contusorum ℥j,
 Spiritûs tenuioris f̄℥iv,
 Aquæ destillatæ f̄℥viij;
 Macera per dies quatuordecim, et cola.











